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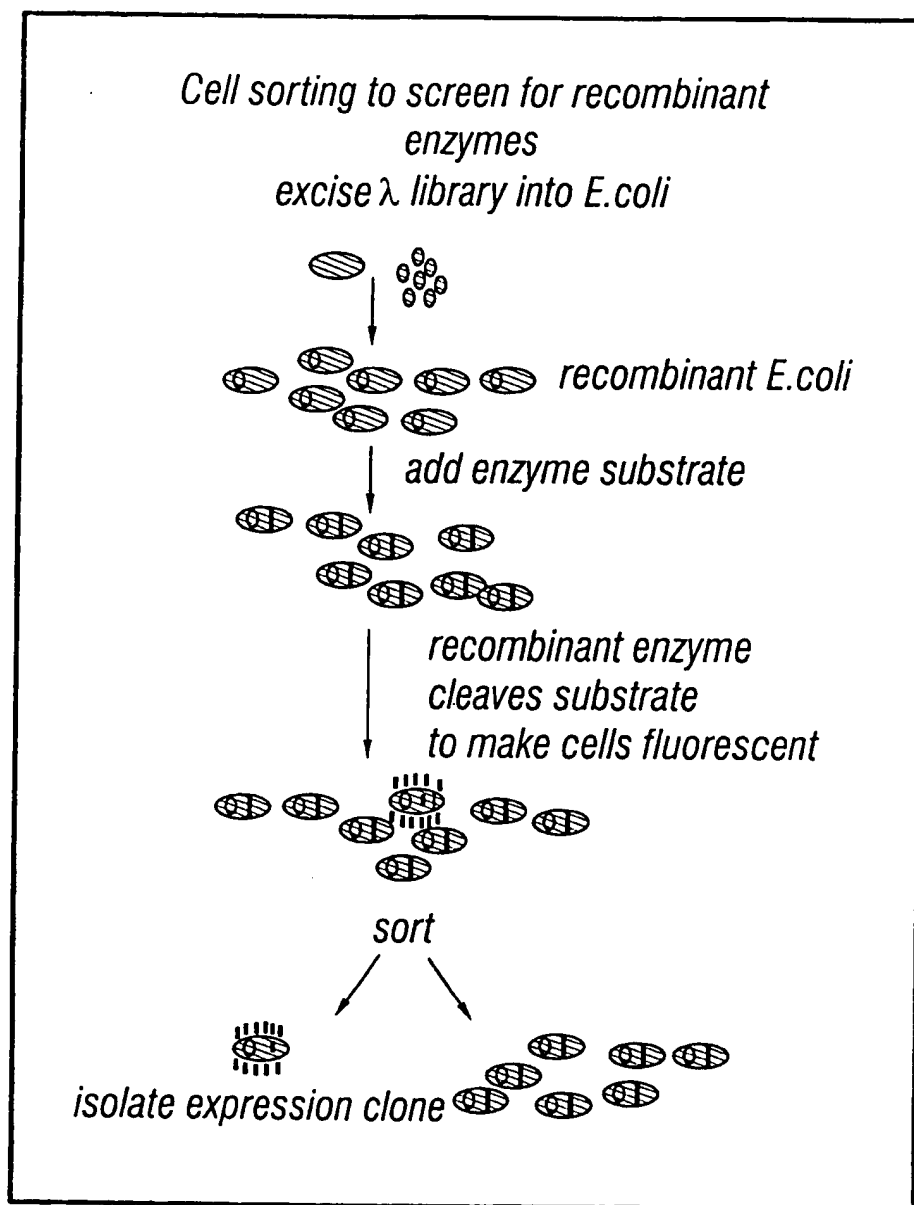


FIG. 1

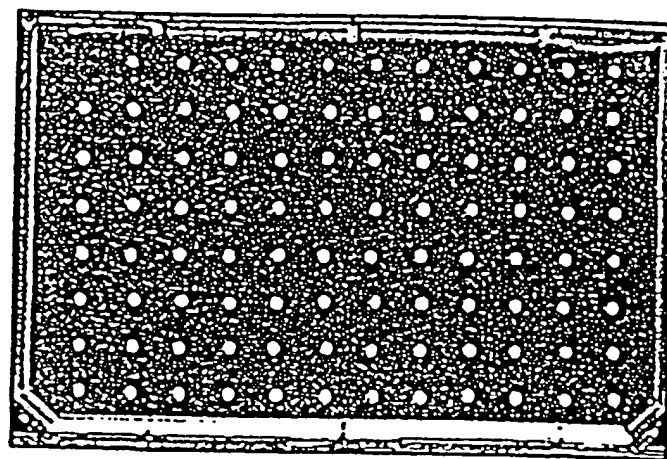
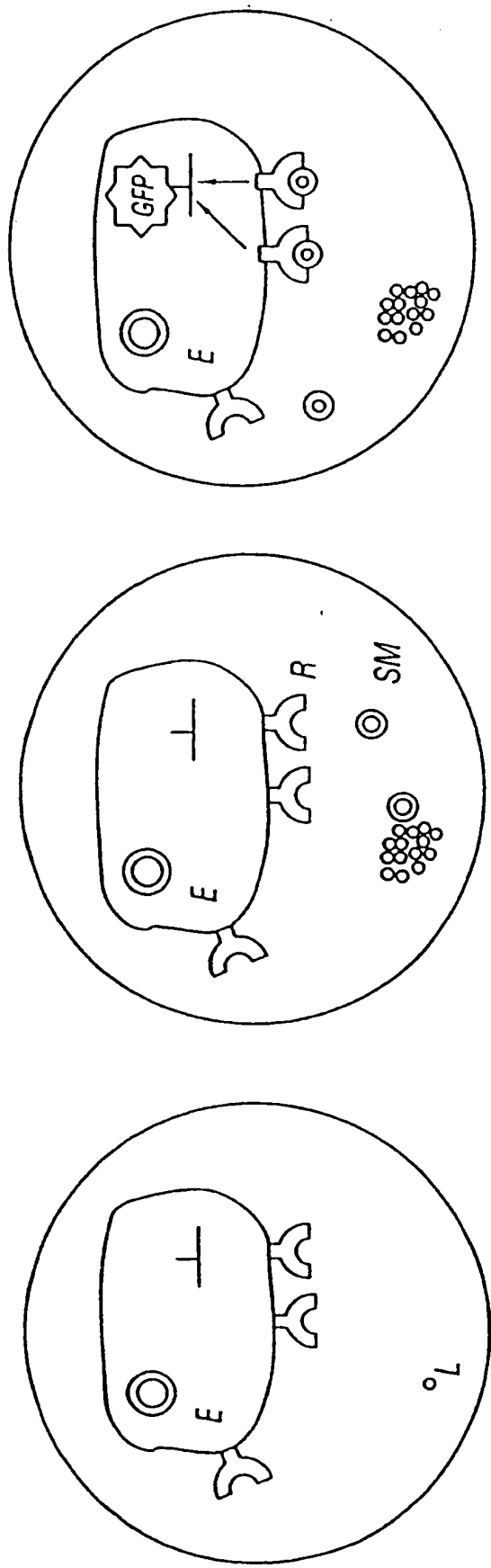


FIG. 2



Co-encapsulation
Library + Eukaryote

Growth and expression
of small molecule from host

Receptor binding of small
molecule & GFP reporting

E=Eukaryotic assay organism	L=Large insert library	SM=Small molecule
GFP= Green fluorescent protein	R=Eukaryotic receptor	

FIG. 3

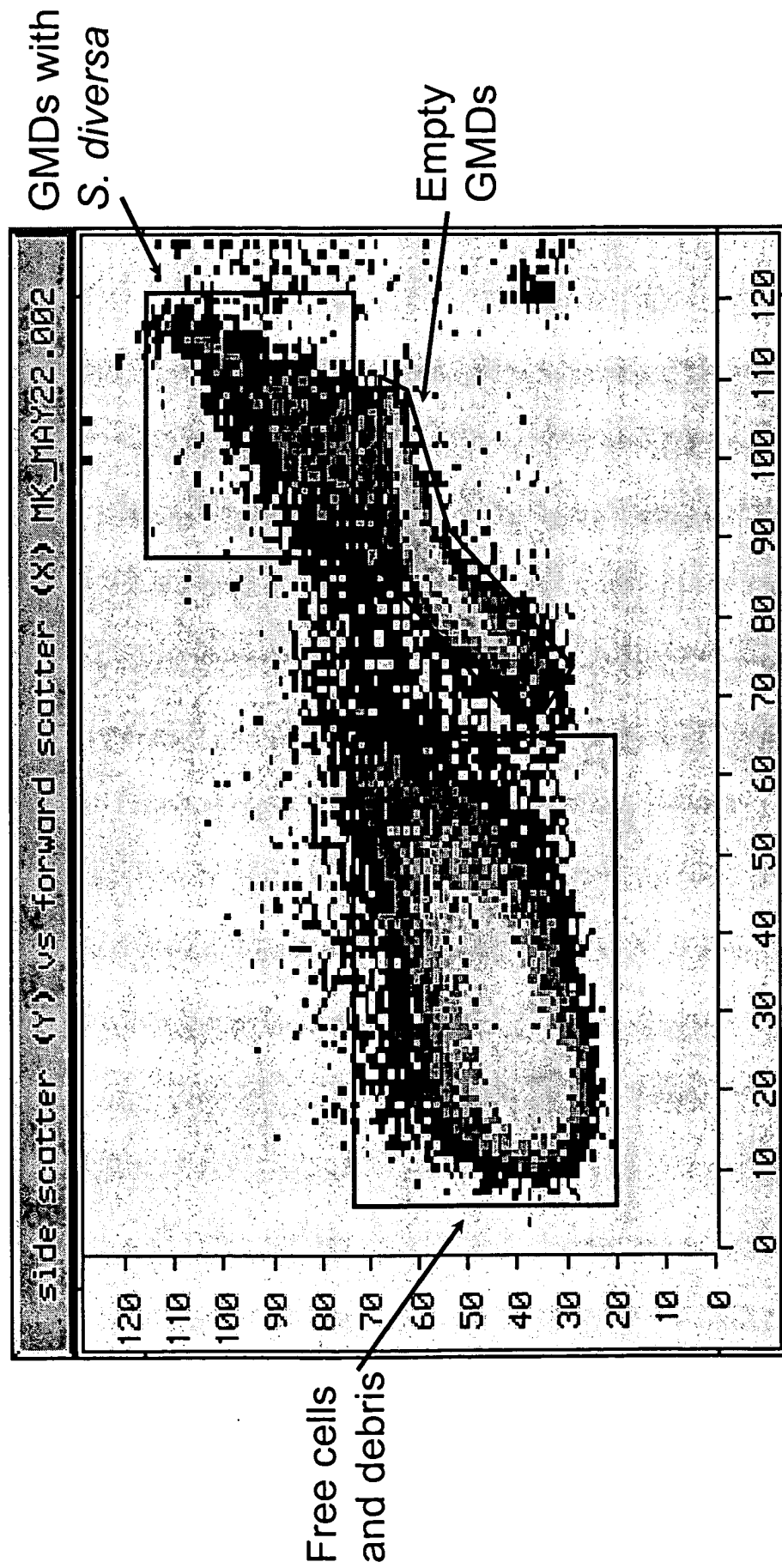


Fig 4

Whole Cell Hybridization Protocol (+ control)

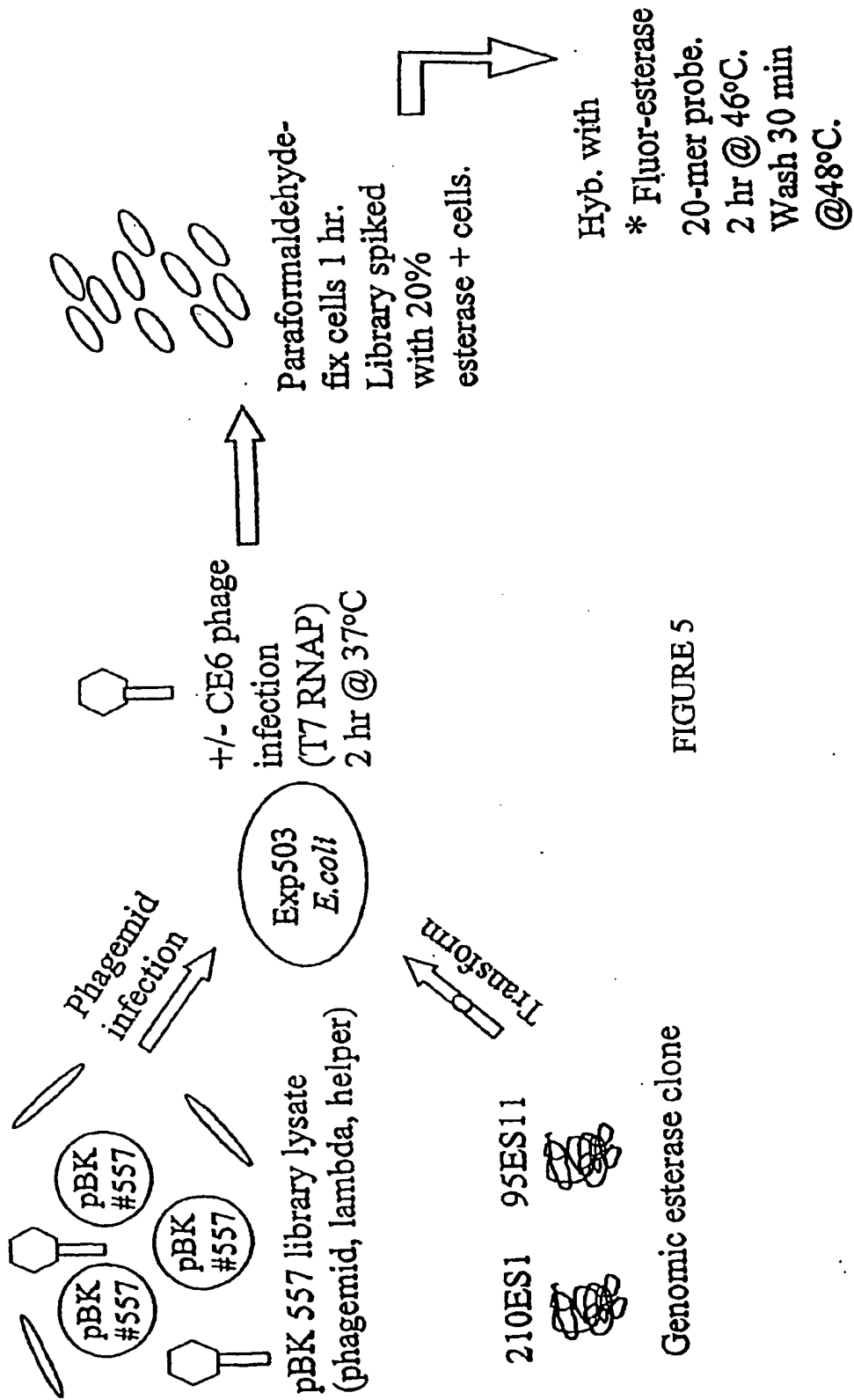


FIGURE 5

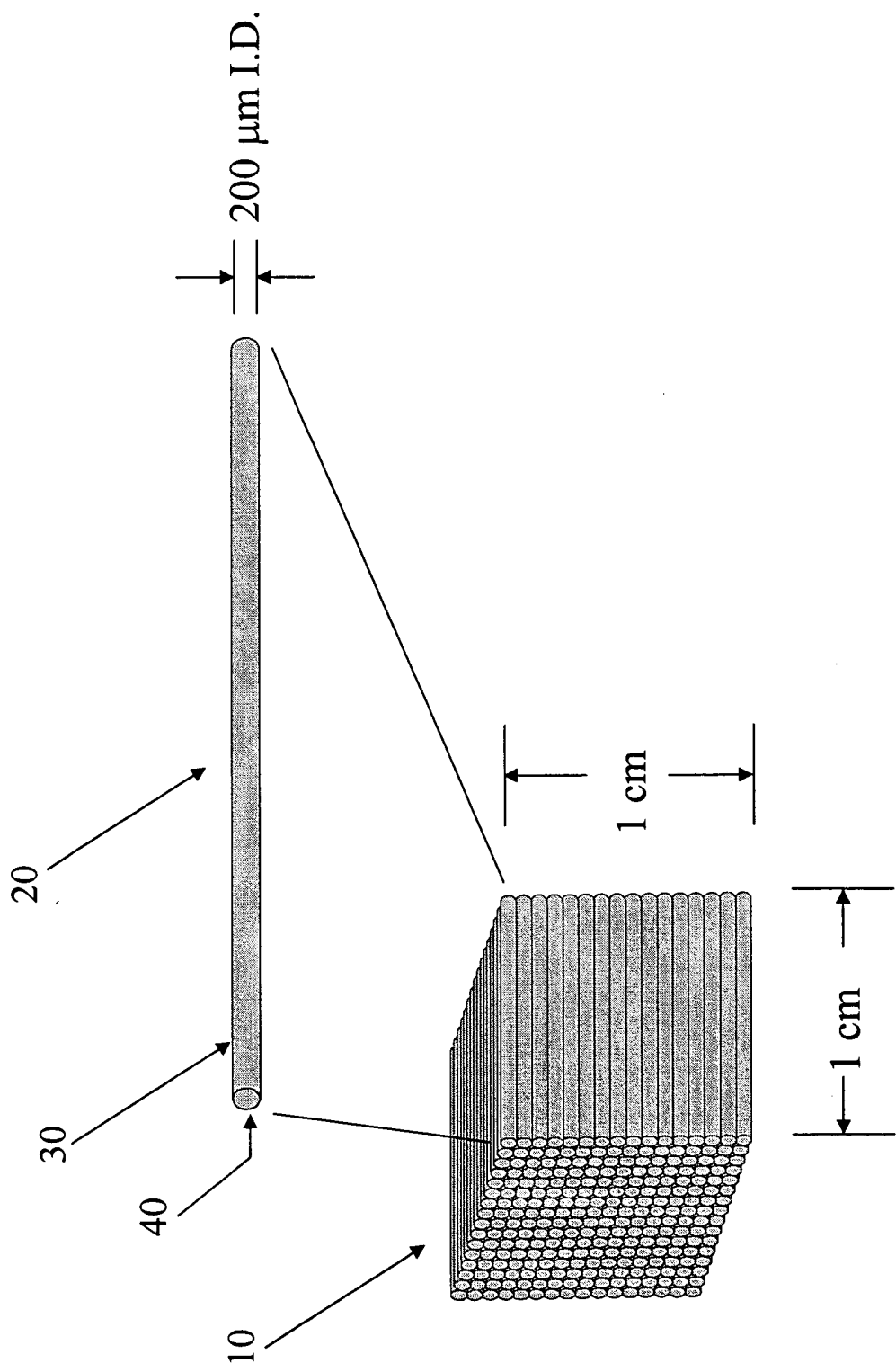


Fig. 6A

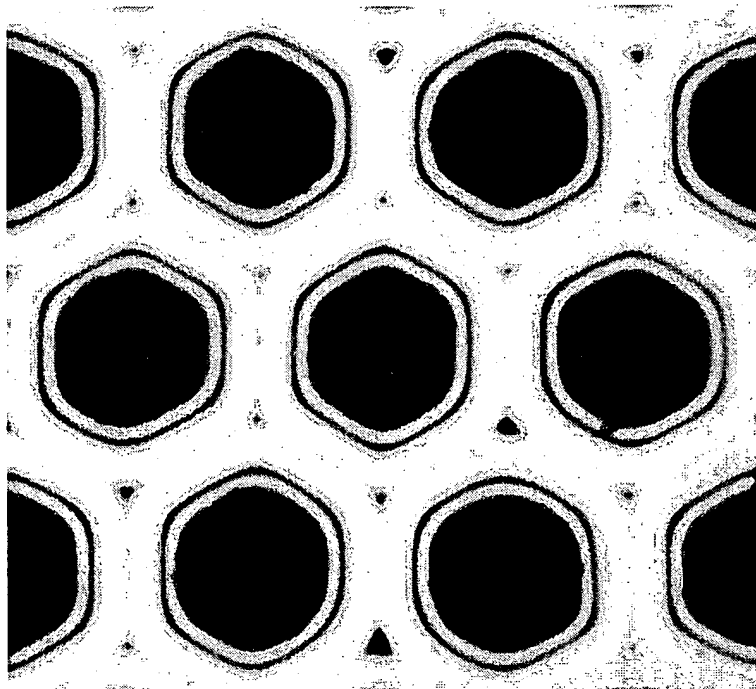


Fig. 6B

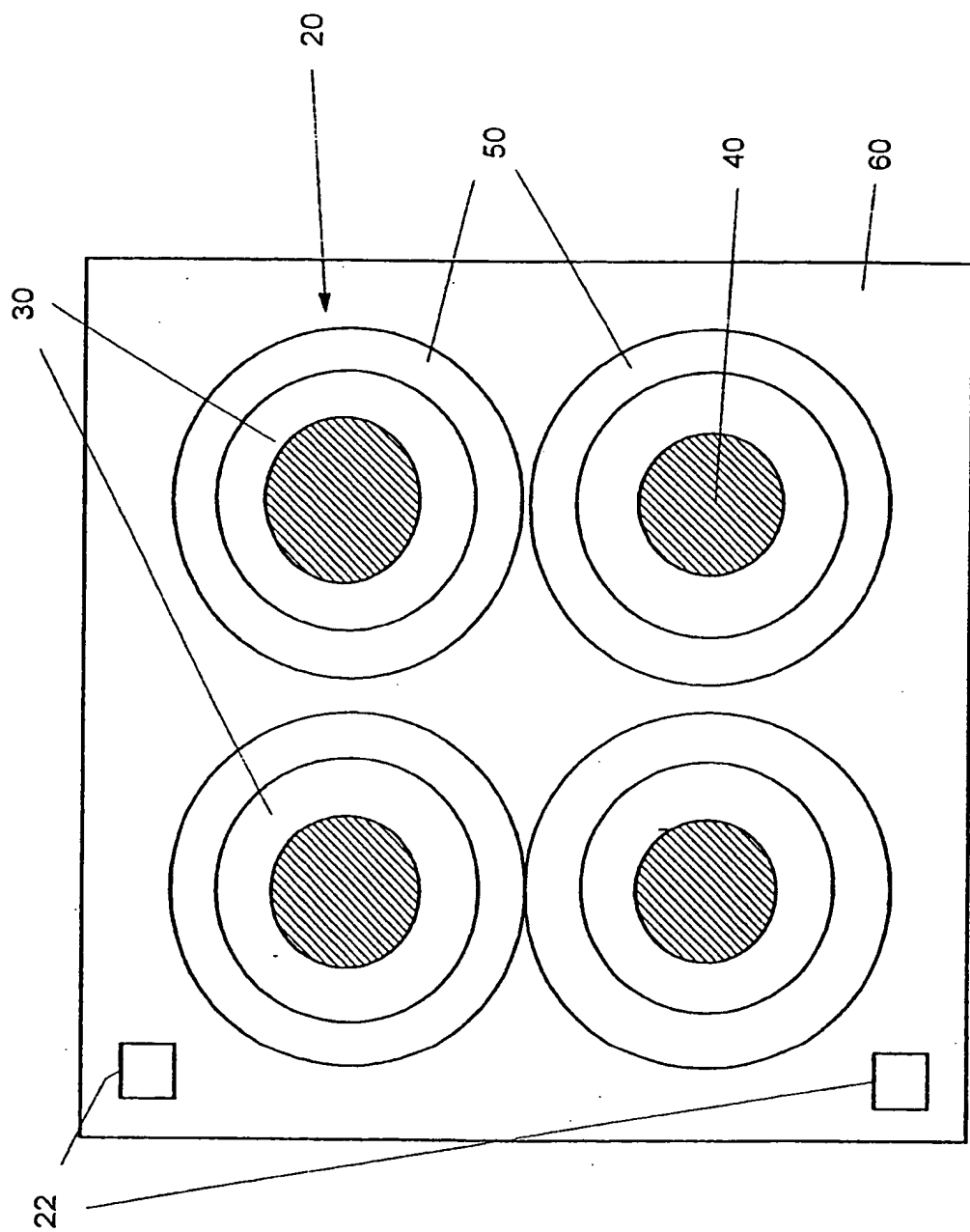


FIG. 7

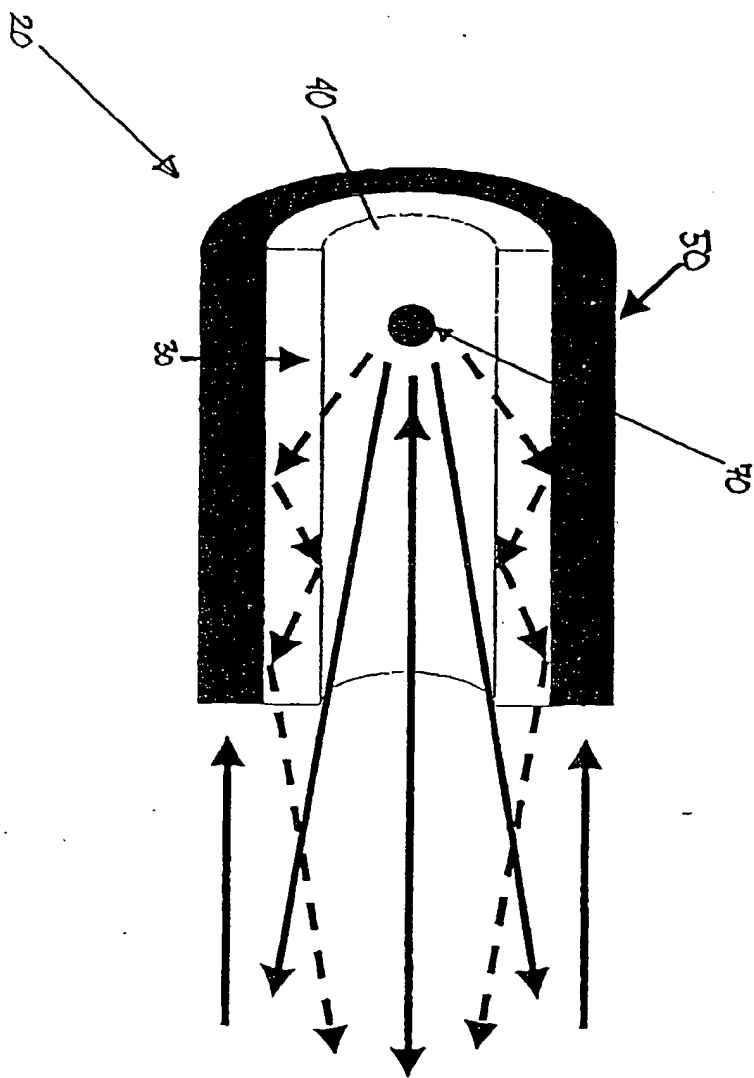


FIG. 8

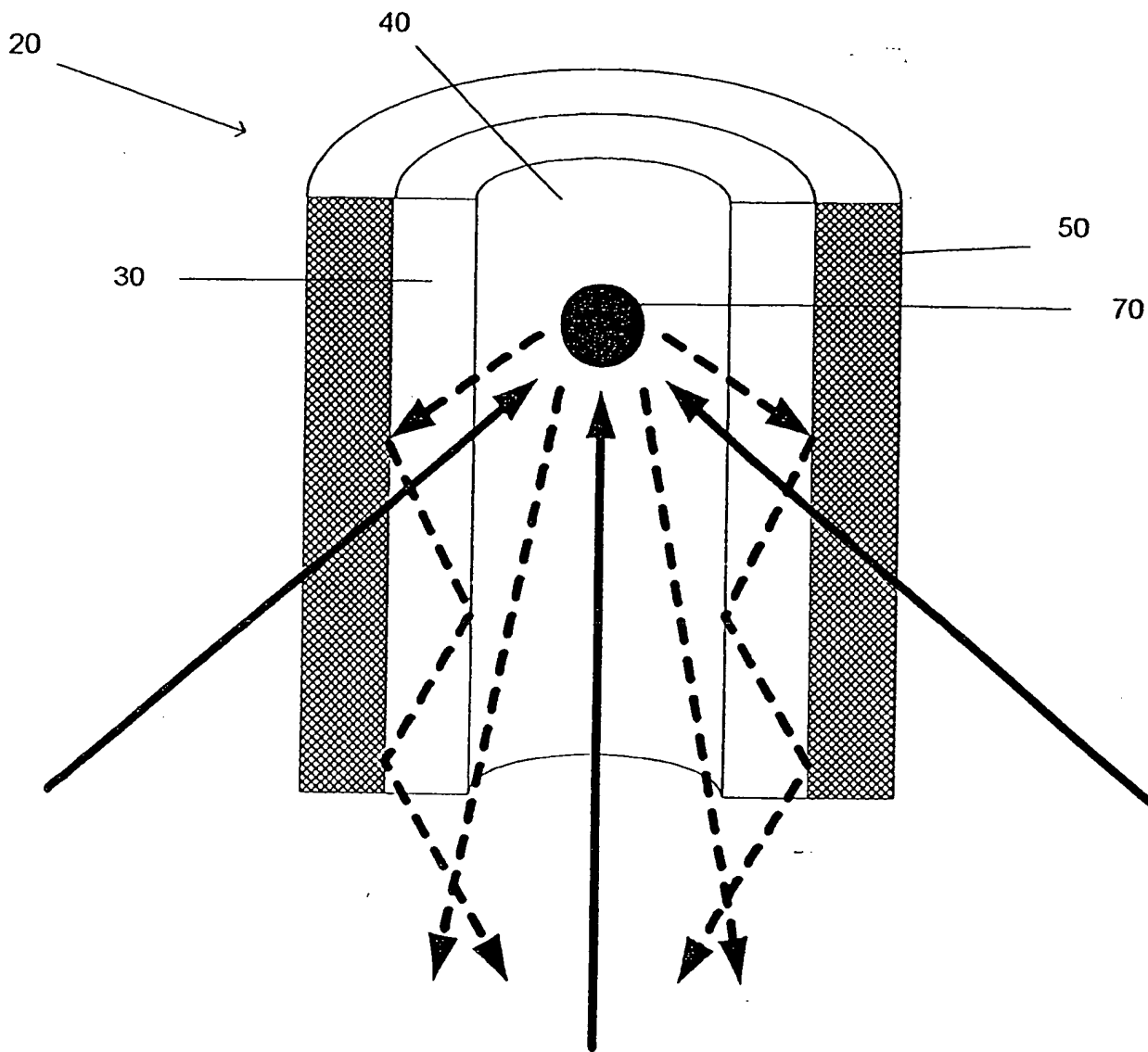


Fig. 9

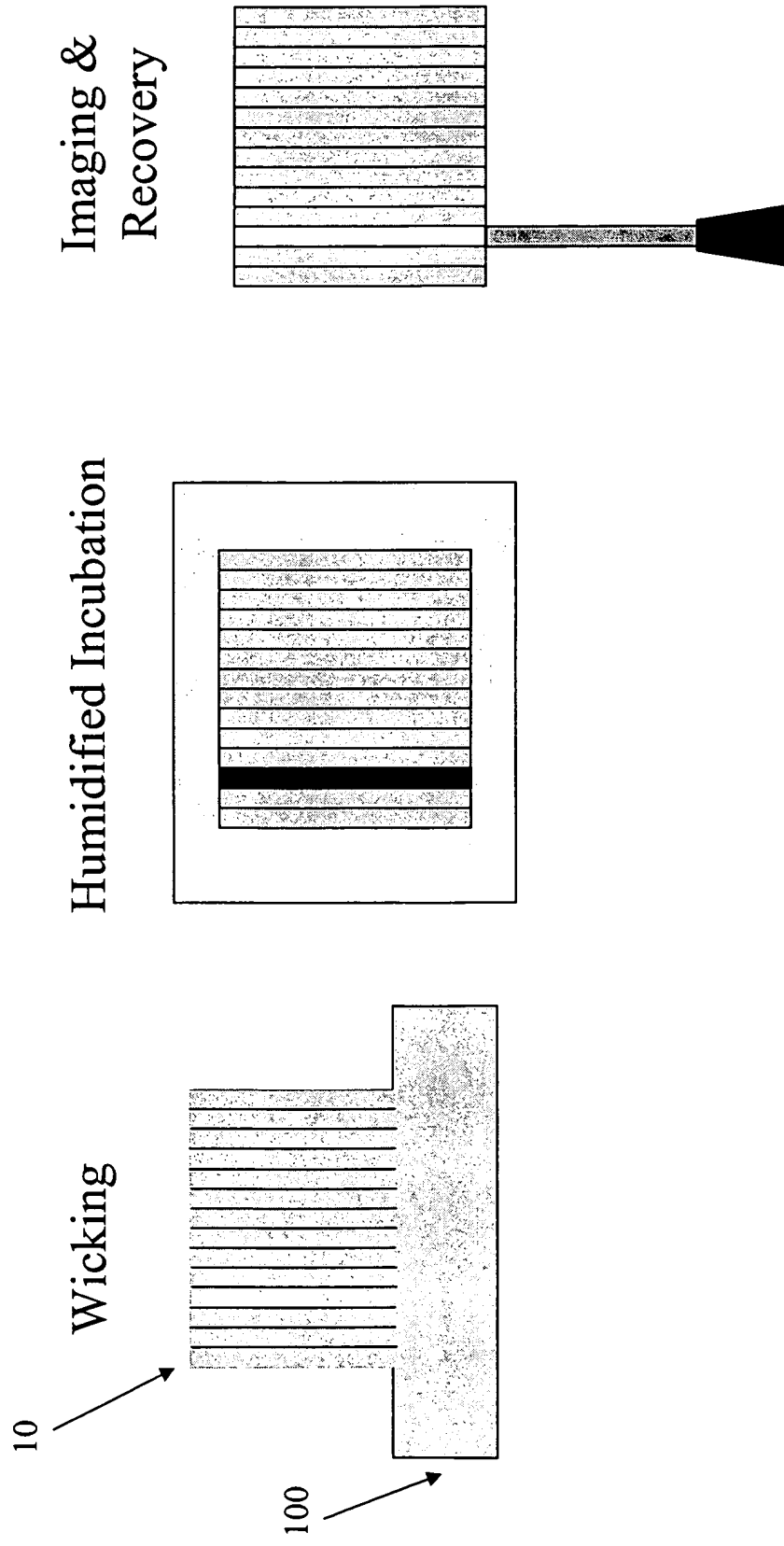


Fig. 10

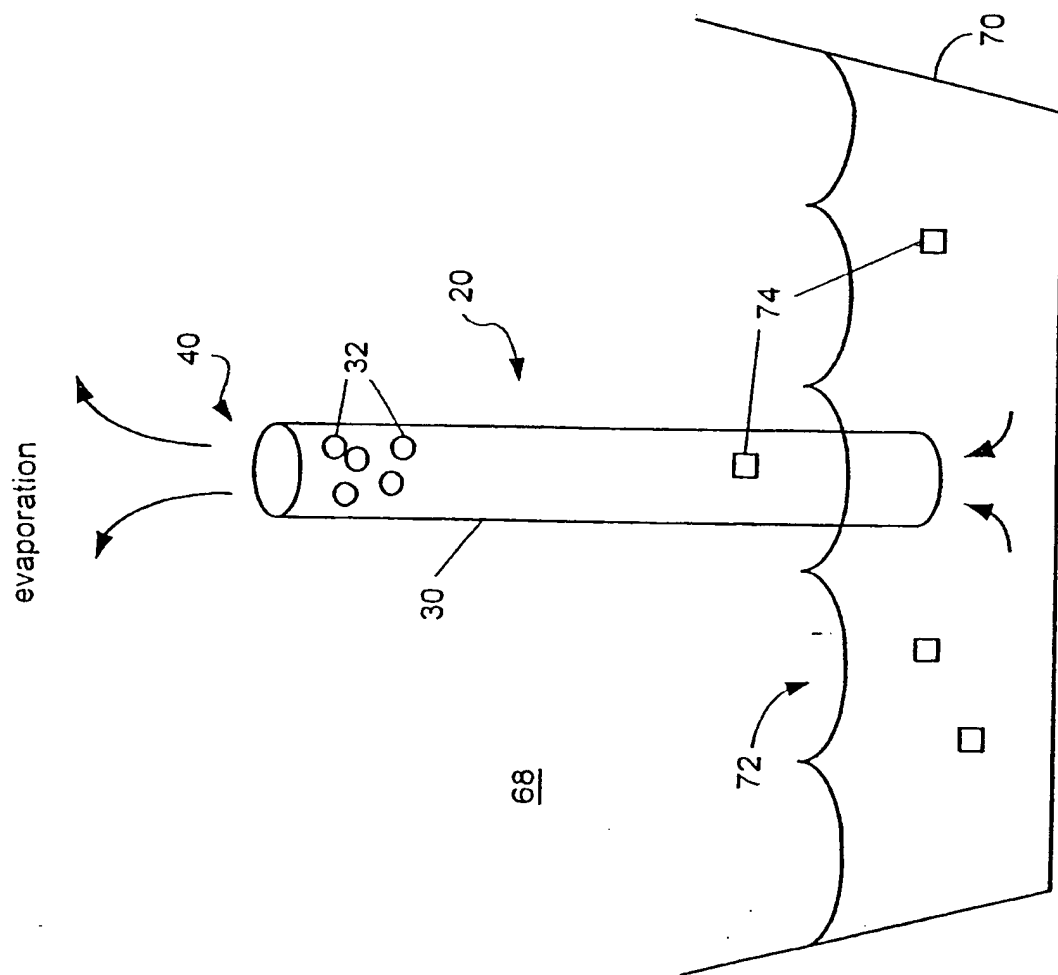


FIG. 11

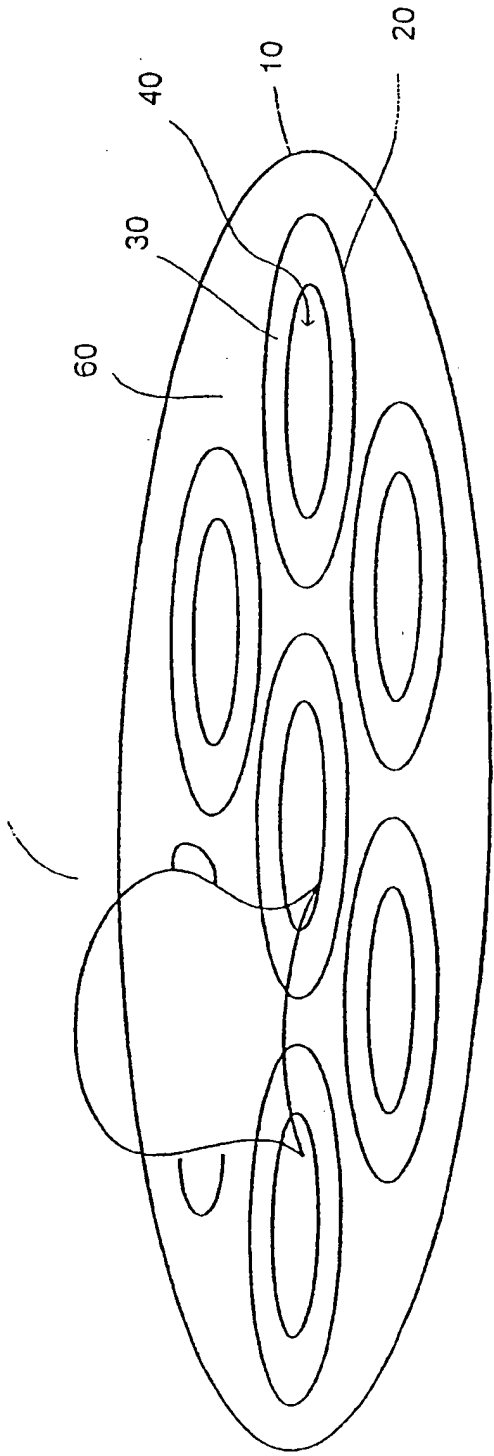


Figure 12A

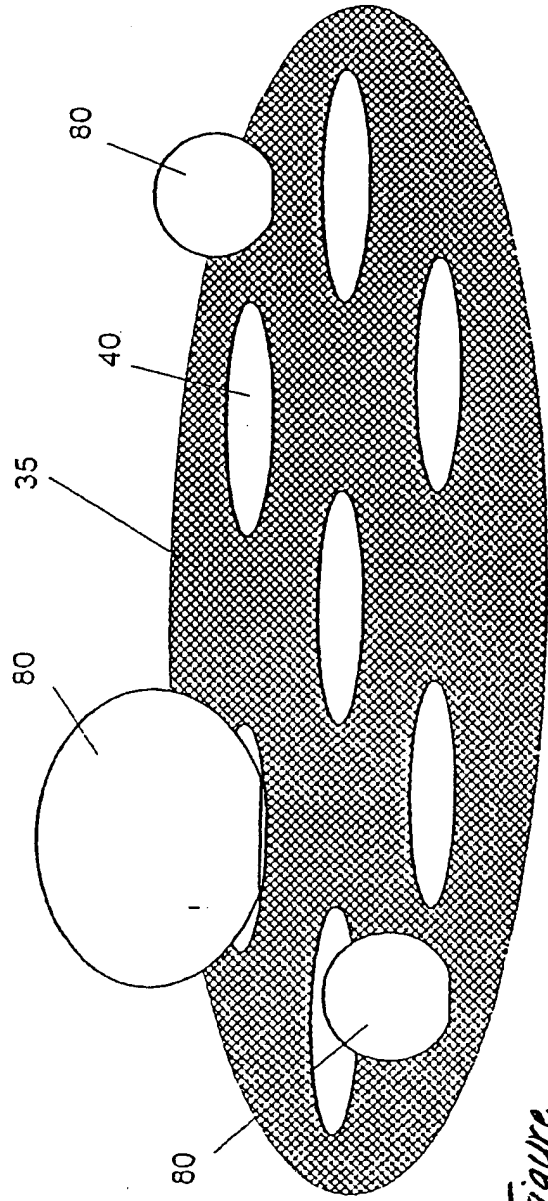


Figure 12B

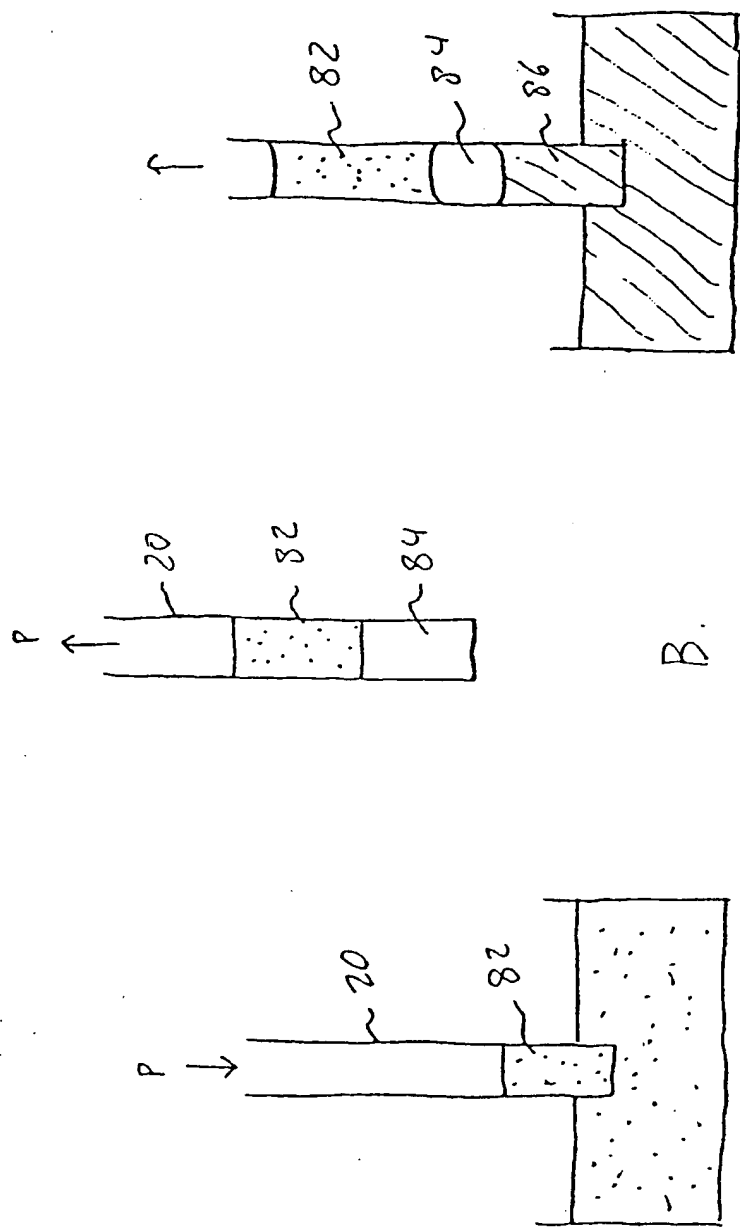


Figure
13

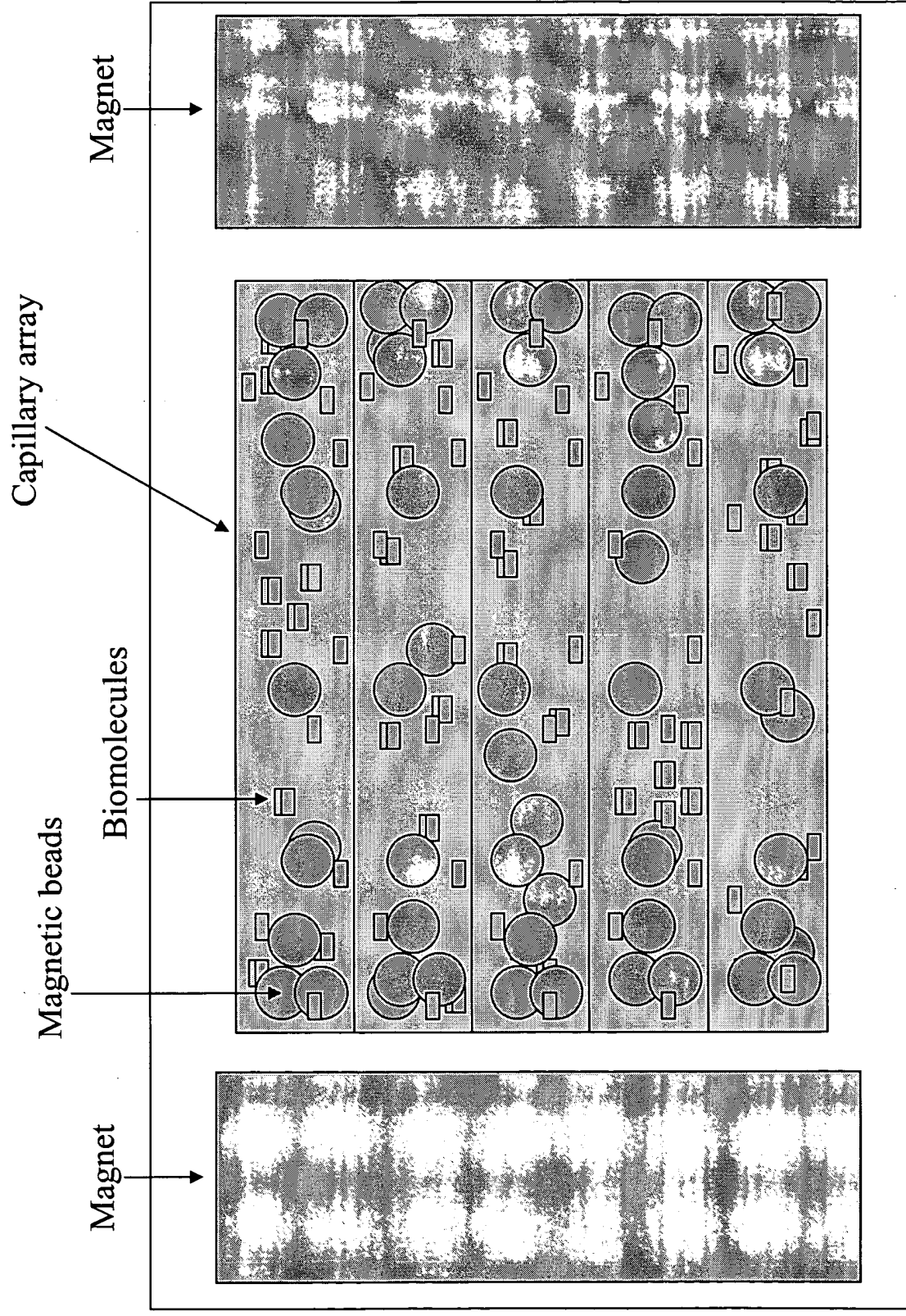


Fig. 14A

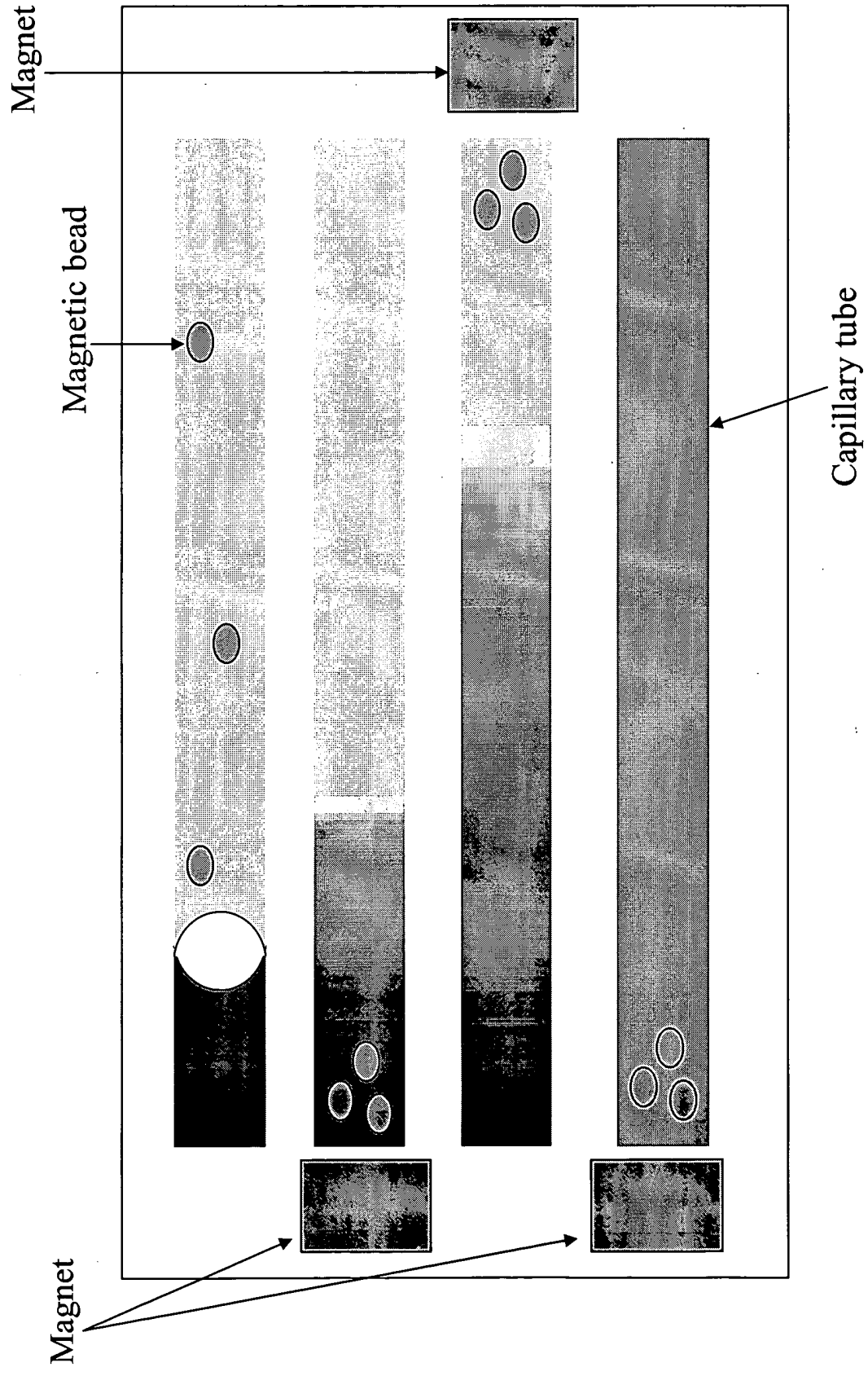


Fig. 14B

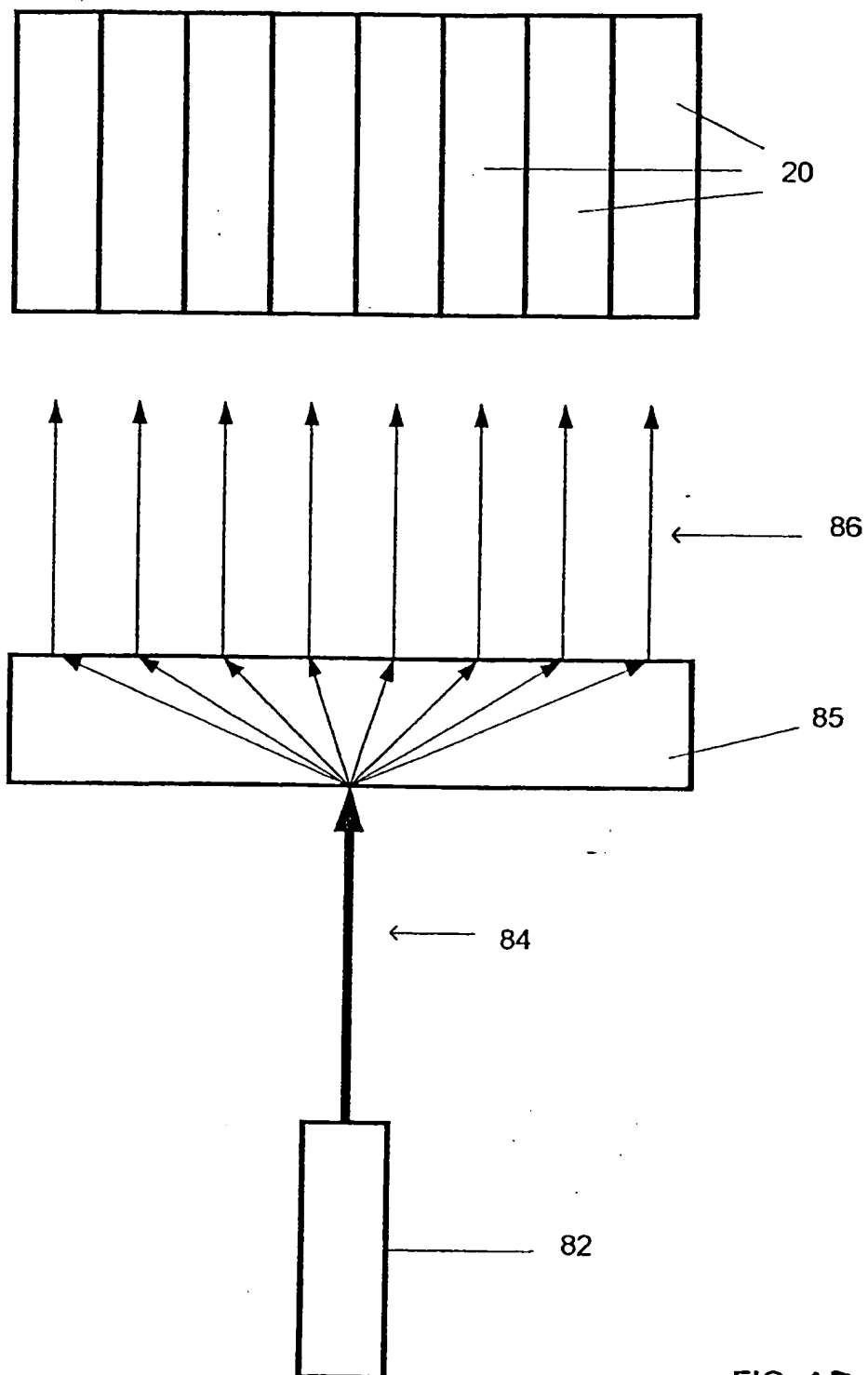
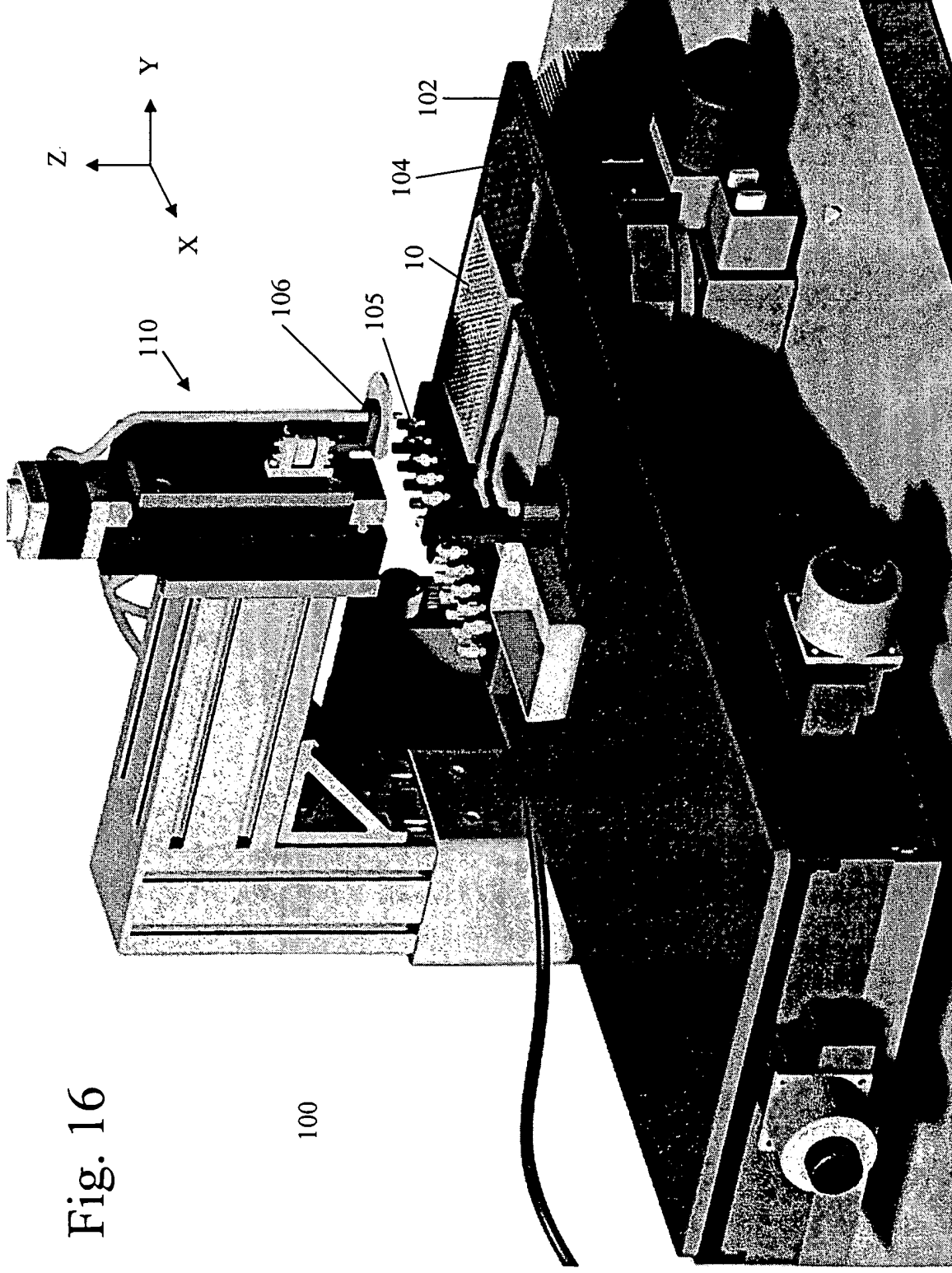
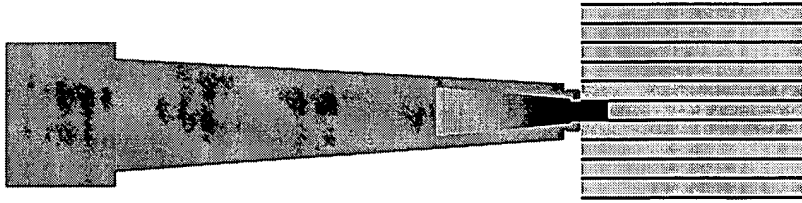


FIG. 15

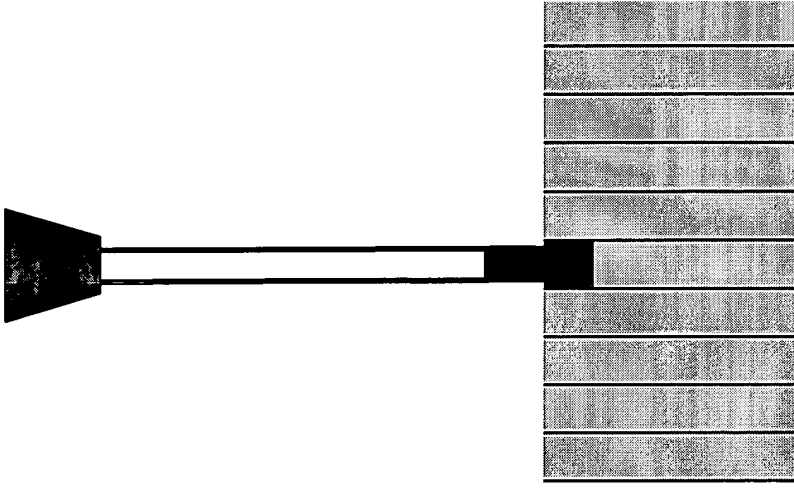
Automated Hit Detection & Recovery System

Fig. 16





A



B

Fig. 17

Recovery Concept

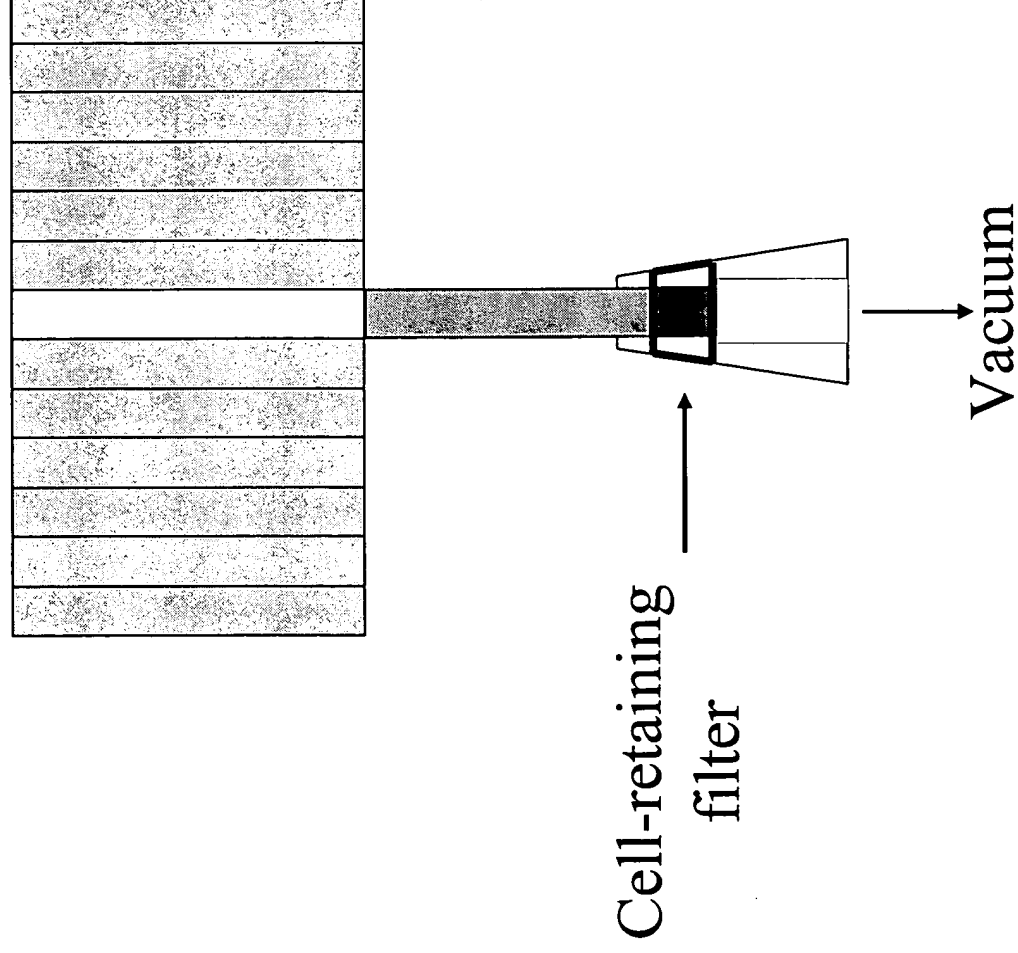


Fig. 17C

Recovery System

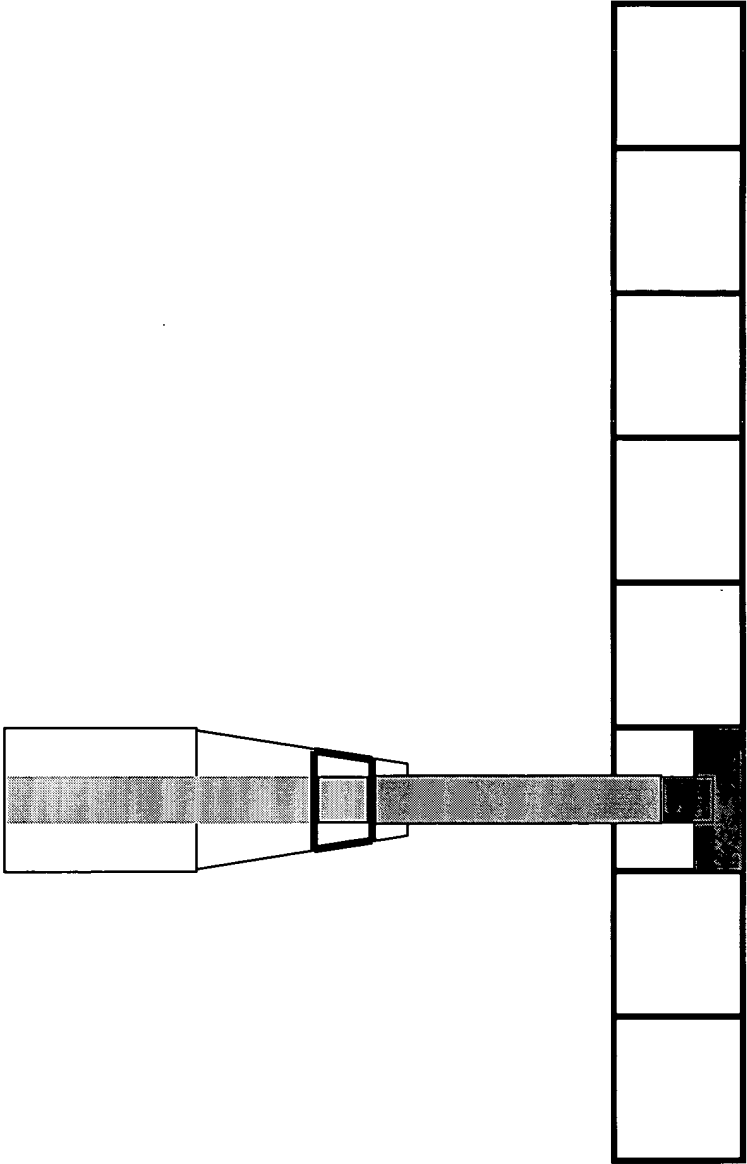


Fig. 17D

HTP Enrichment of Low Copy Gene Targets

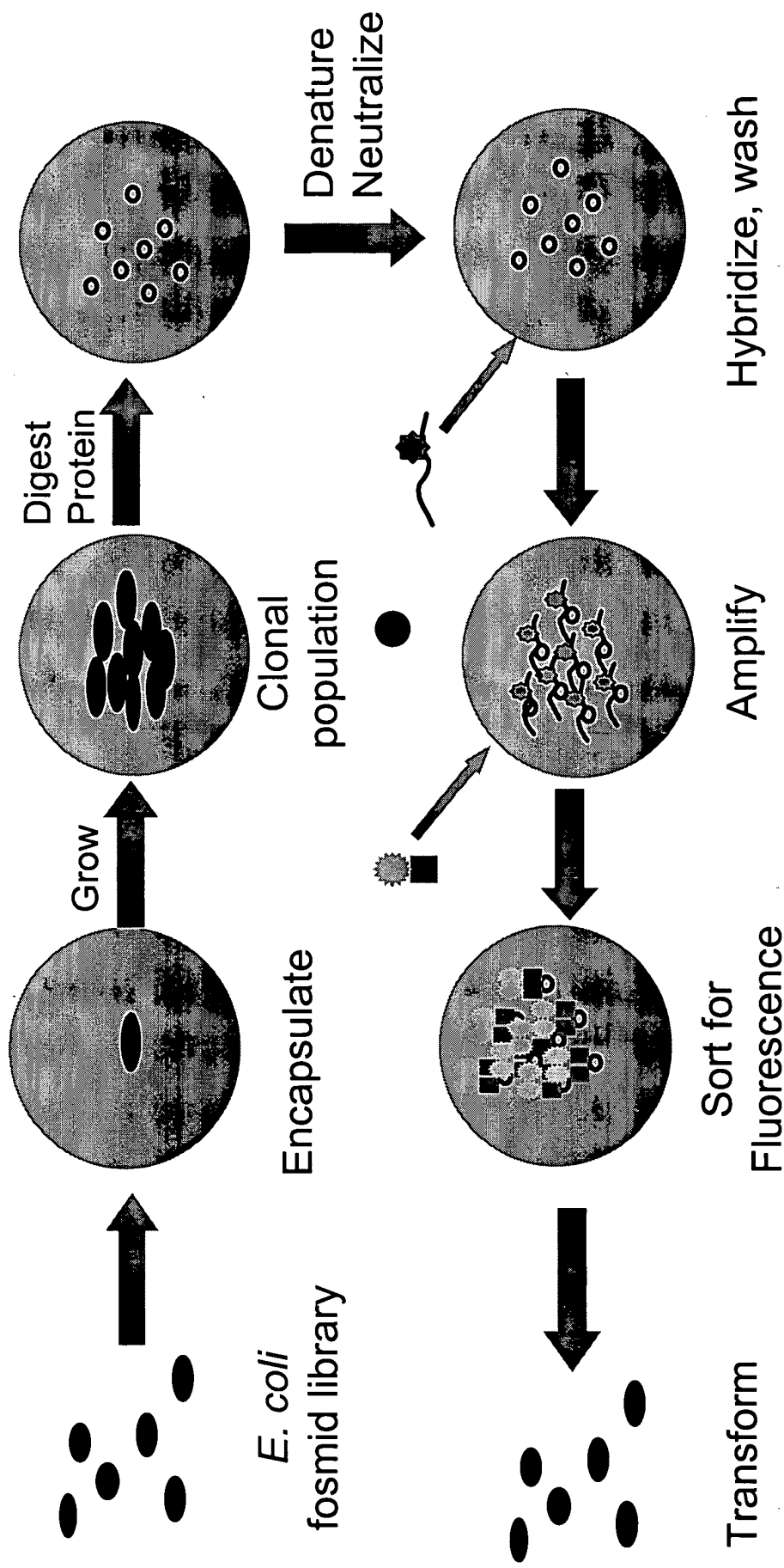
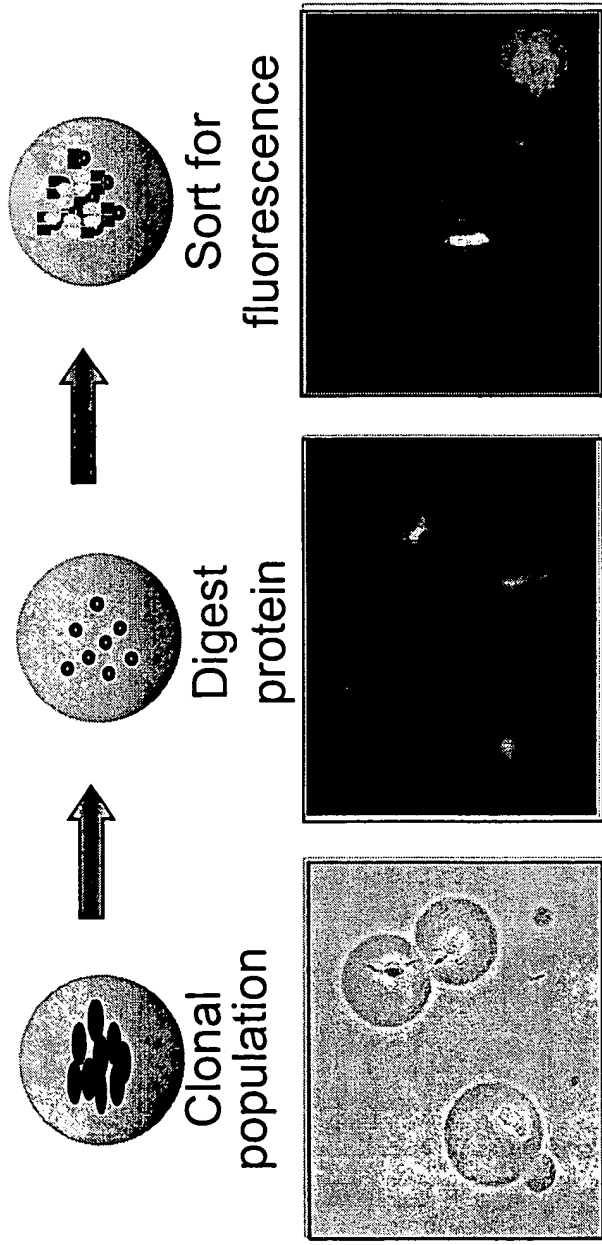


Fig. 18

FACS-Biopanning

Fig. 19A



EtBr stained DNA

(SEQ ID NO. 1) Env2	-STGCTSGLDVGYAVQLIREGSADVVIAGAADTPVSPVVACFDAIKATTTRNDDPEHA
(SEQ ID NO. 2) S.cyanus	VSTGCTSGLDVGYAFHTIEGRADVCIAGASDSPISPITMACFDAIKATSPNNDDPEHA
(SEQ ID NO. 3) S.halstedii	VSTGCTSGLDVGYAYHAIIEGRADVCLAGASDSPISPITMACFDAIKATSPNDDPEHA
(SEQ ID NO. 4) S.peucetius	VSAGCTSGIDSTIGYACELIREGTVDMVAGGVDAPIAPITVACFDAIRATSDHNDTPETA
(SEQ ID NO. 5) E.coli	IATACTSGVHNIGHAARI IAYGDADVAVAGGAEKASTPLGVGGFGAARALSTRNDNPQAA
Env2	SRPFDGTRNGFVLAEGAAMFVLEEYEAARRGHHIYAEVGGYATRCNAYHMTGLKKGRE
S.cyanus	SRPFDHRDGFVMEGGAALVLEELEHARARGAHVYCEIGGYATFGNAYHMTGLTSEGLE
S.halstedii	SRPFDARRNGFVMEGGGAVLLEELEHARARGADVCELAGYATFGNAHMTGLTREGLE
S.peucetius	SRPFSRSRNGFVLGEGGAI VLEEAEAAVRRGARIYAEIGGYASRGNAHYHMTGLRADGAE
E.coli	SRPDKERDGFVLGDGAGMLVLEEYEHAKKRGAKIYAEVLVFGMSSDAYHMTSPPEAGAG
Env2	MAEAIIRAALDEA
S.cyanus	MARAIDVALDHA
S.halstedii	MARAIDTALDMA
S.peucetius	MAAAITAALDEA
E.coli	AALAMANALRDA

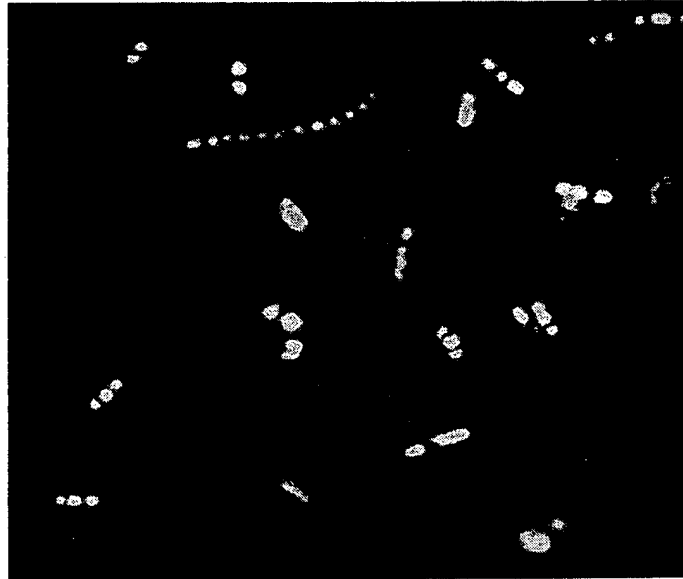
Fig. 19B

Alignment of Environmental PKS Sequence

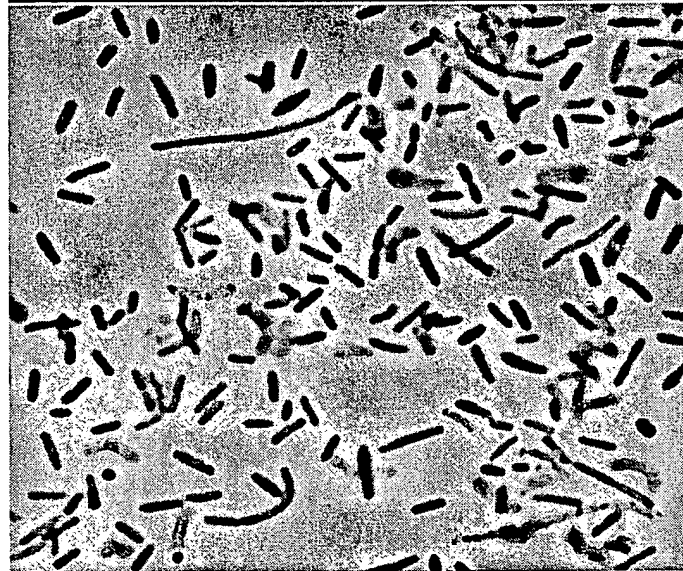
Whole Cell Hybridization

Library 557 + 95ES11 clone

Probe: Fluorescein-95ES11



Fluorescein
Excitation



White
light

Fig. 20

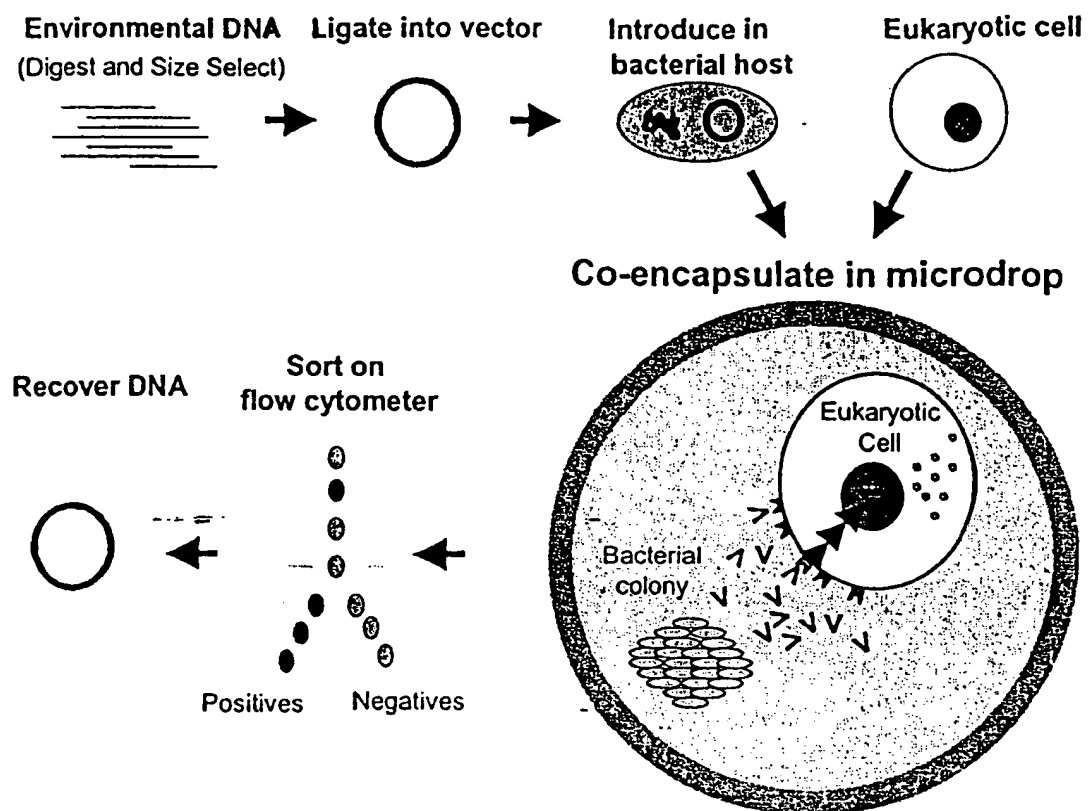


FIG. 21

Whole Cell Hybridization Protocol

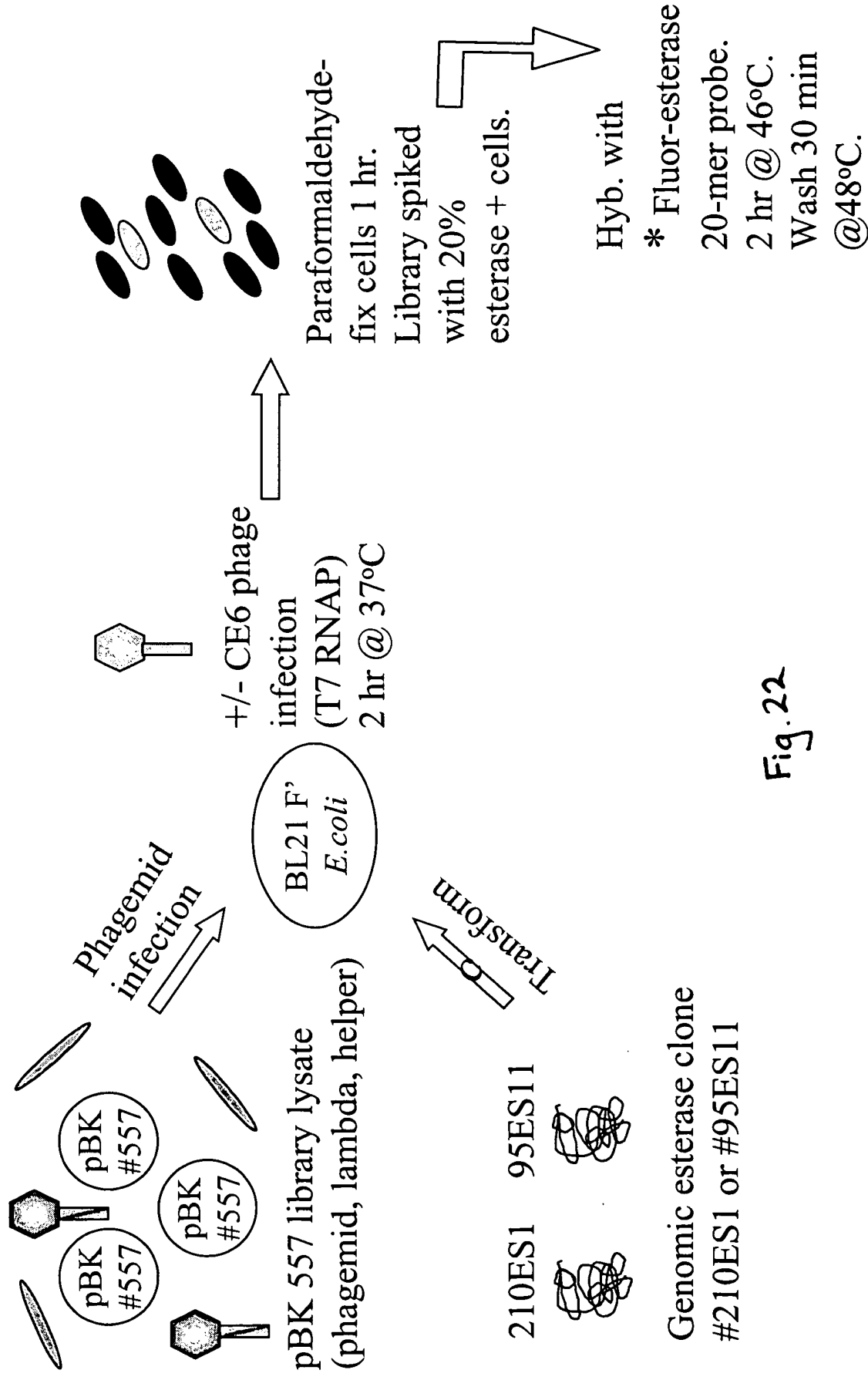


Fig. 22

T7 RNA Polymerase Expression System

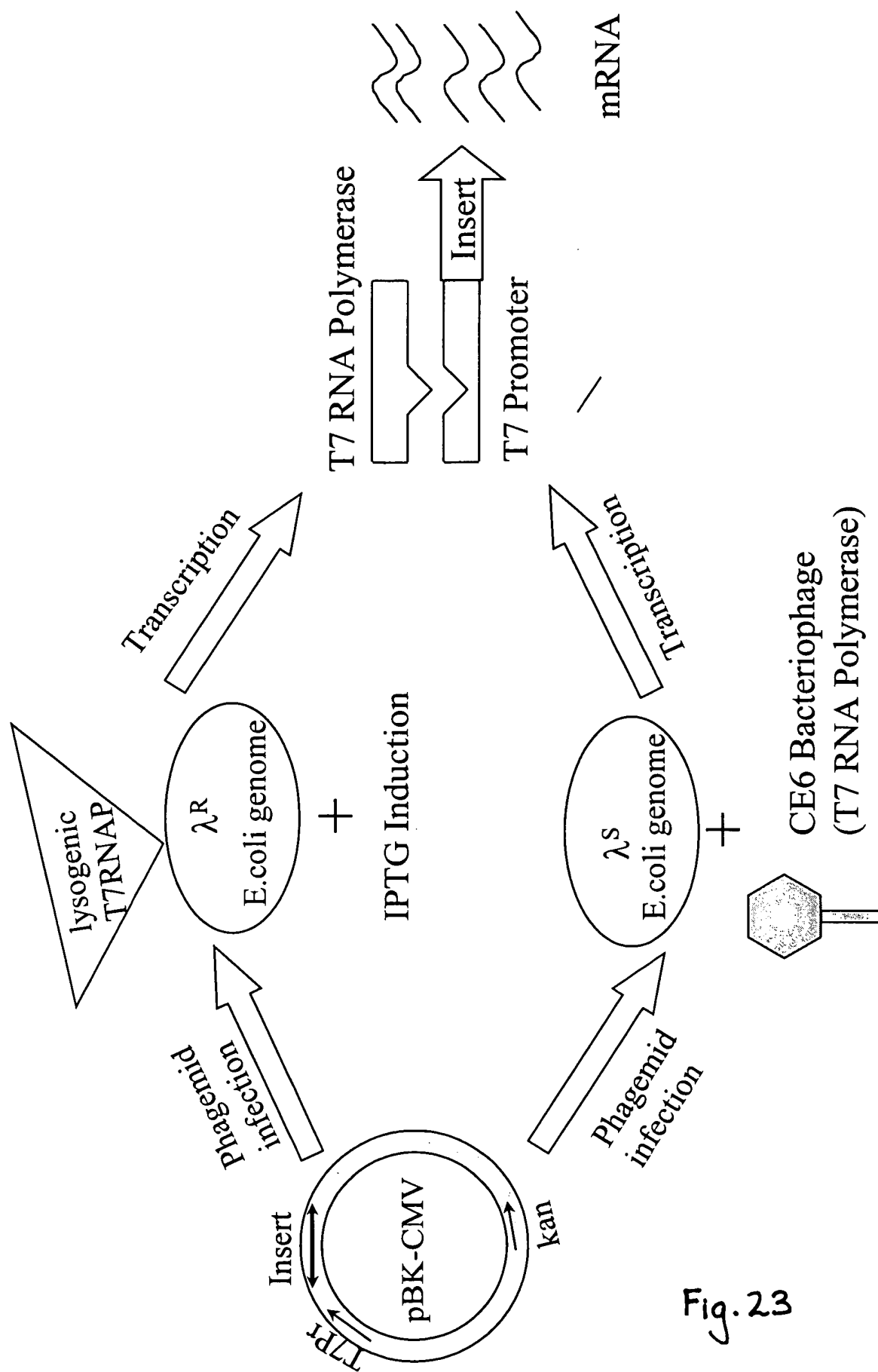


Fig. 23

Figure 24

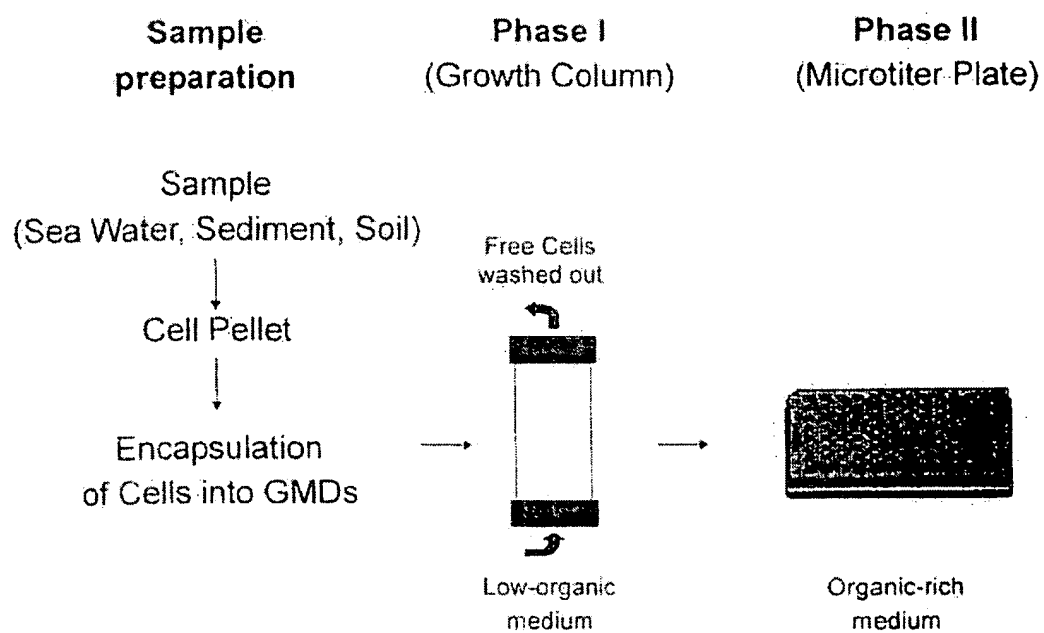


Figure 25

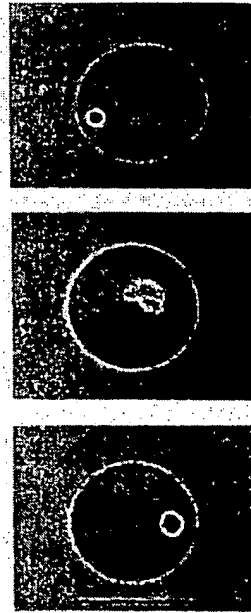
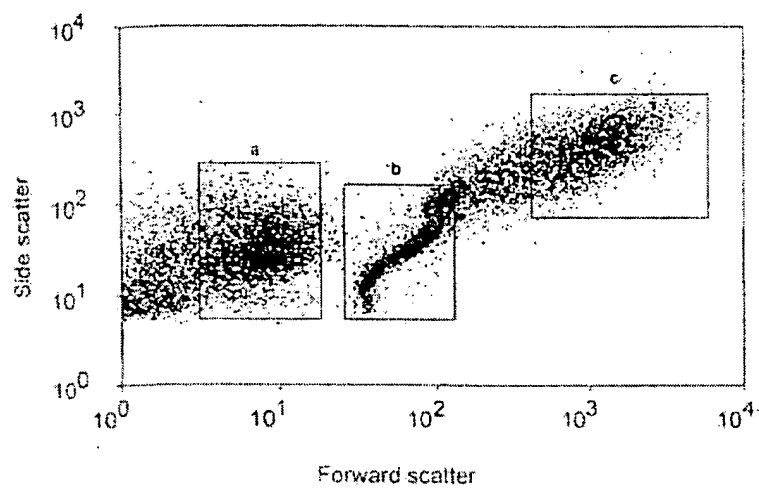


Figure 26a

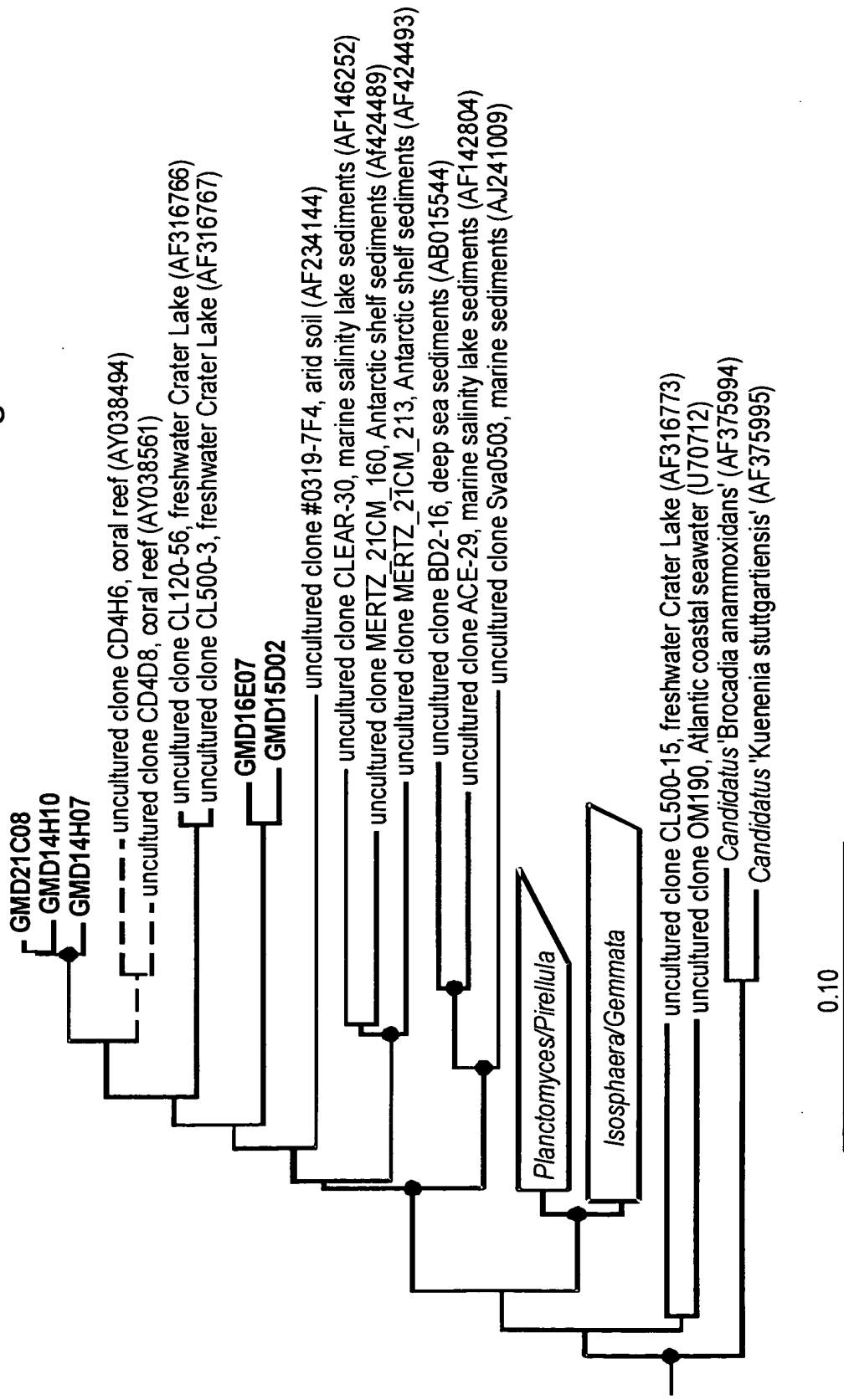


Figure 26b

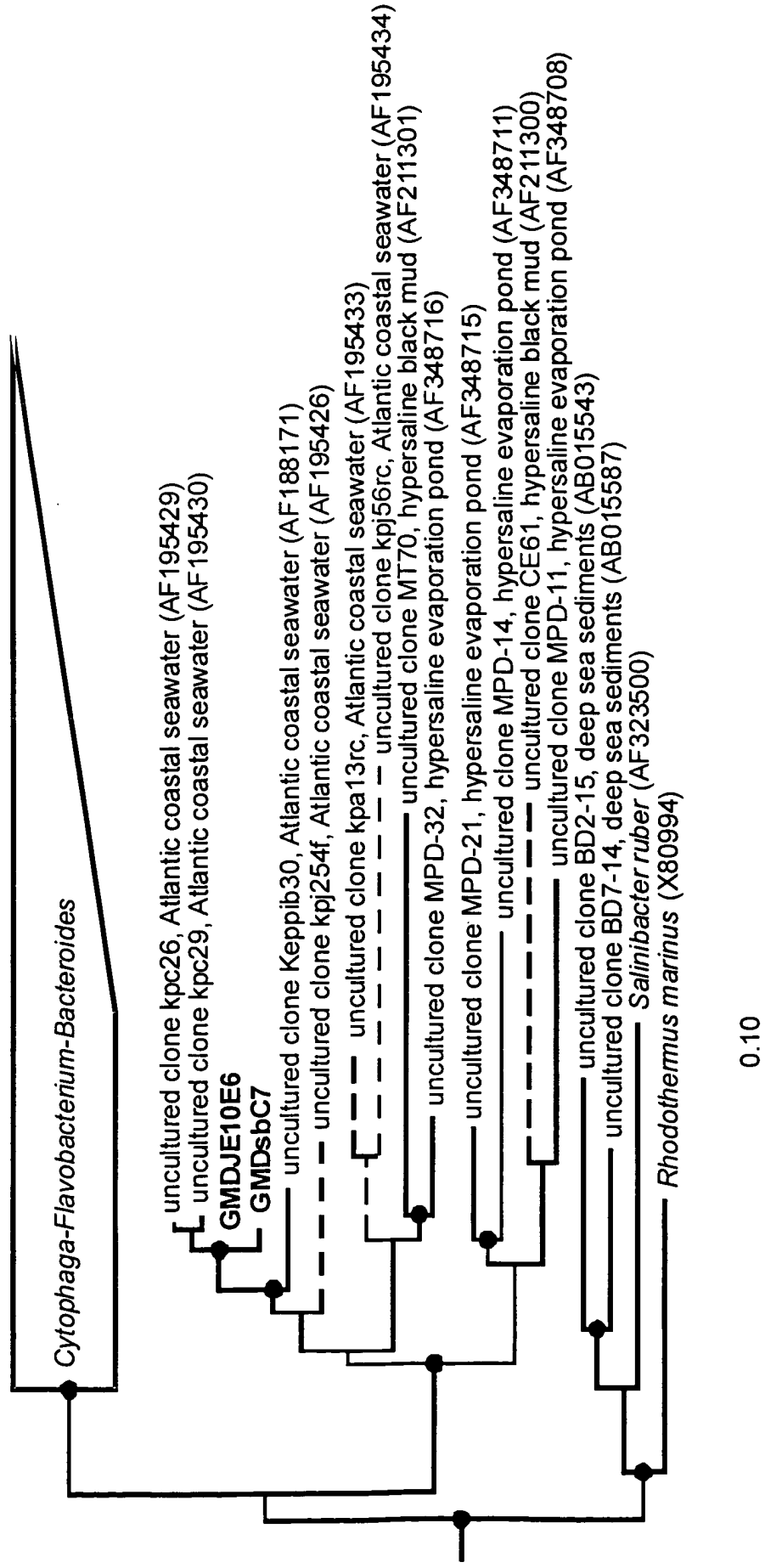


Figure 26c

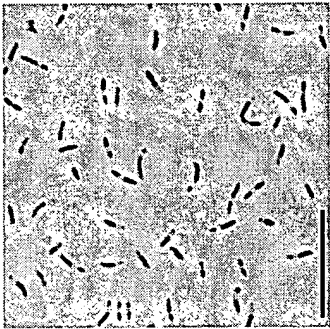
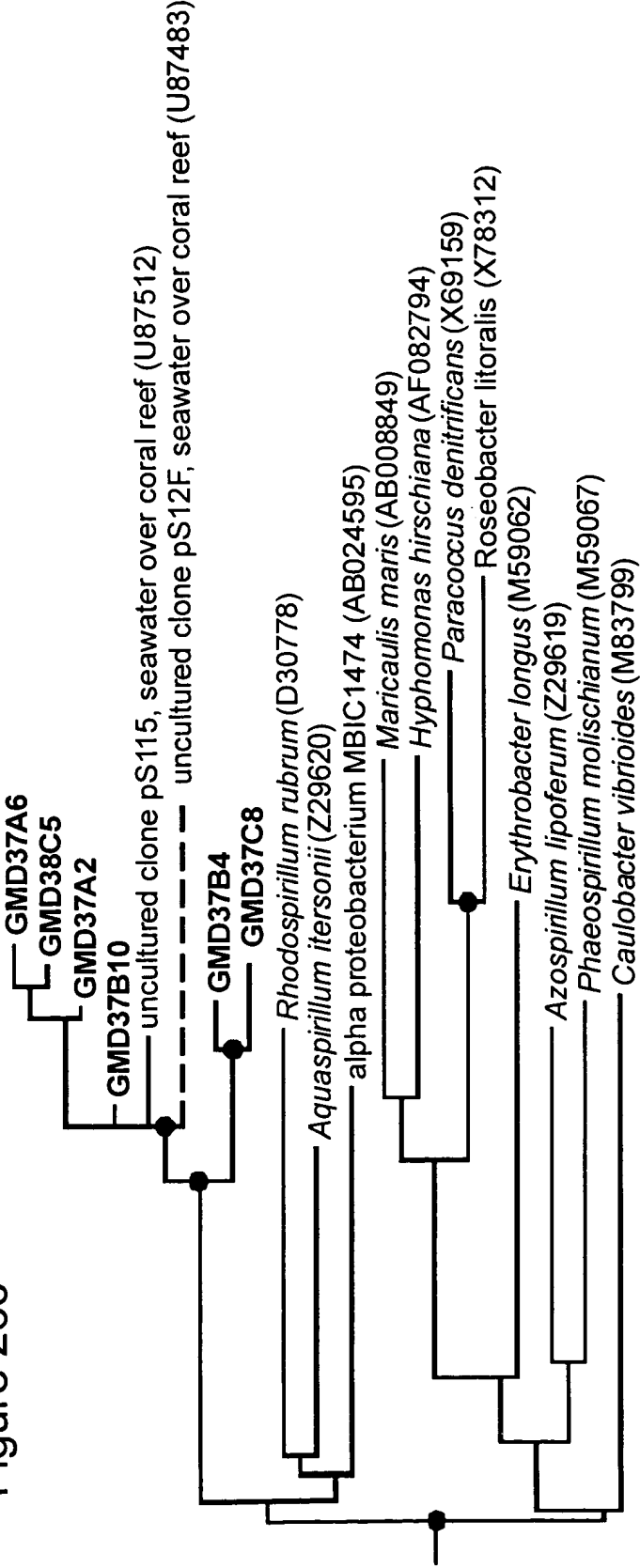
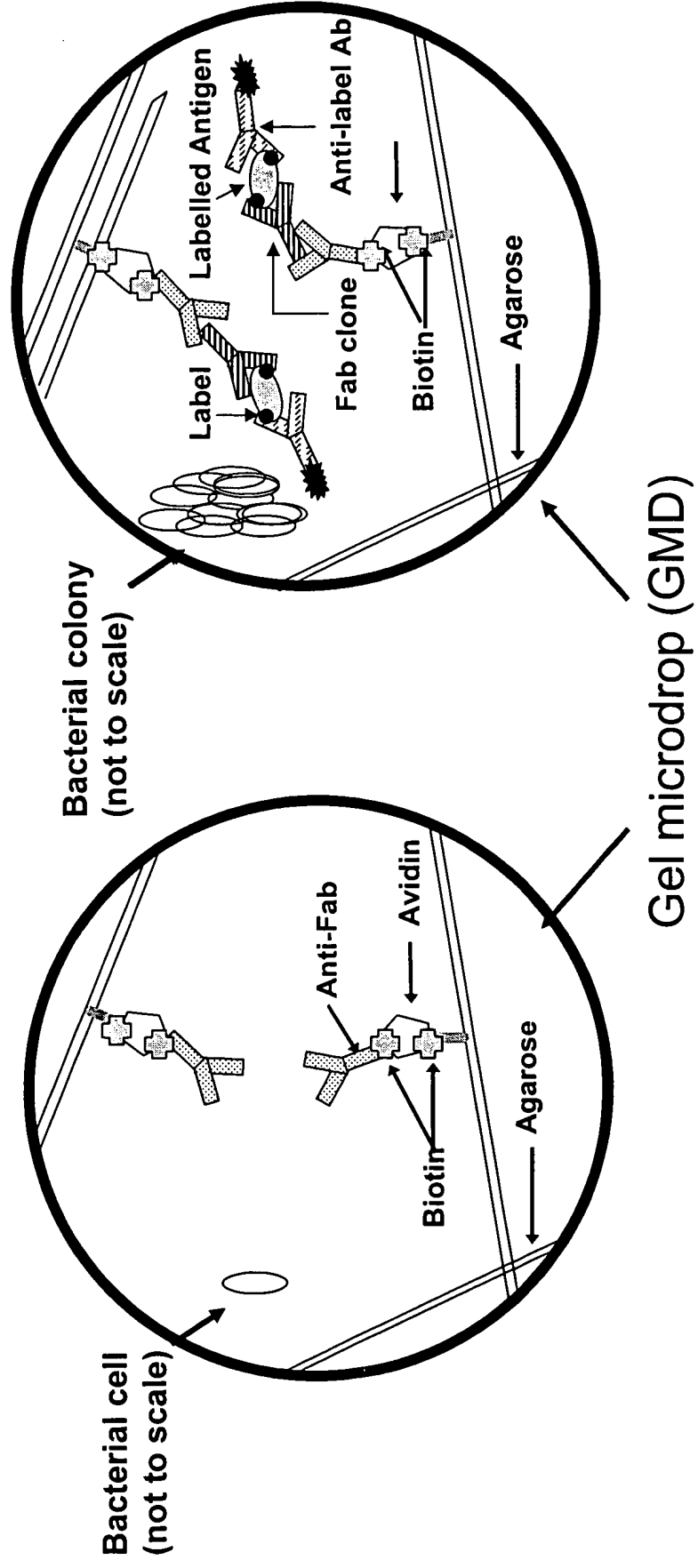


Figure 26d

Fig. 27



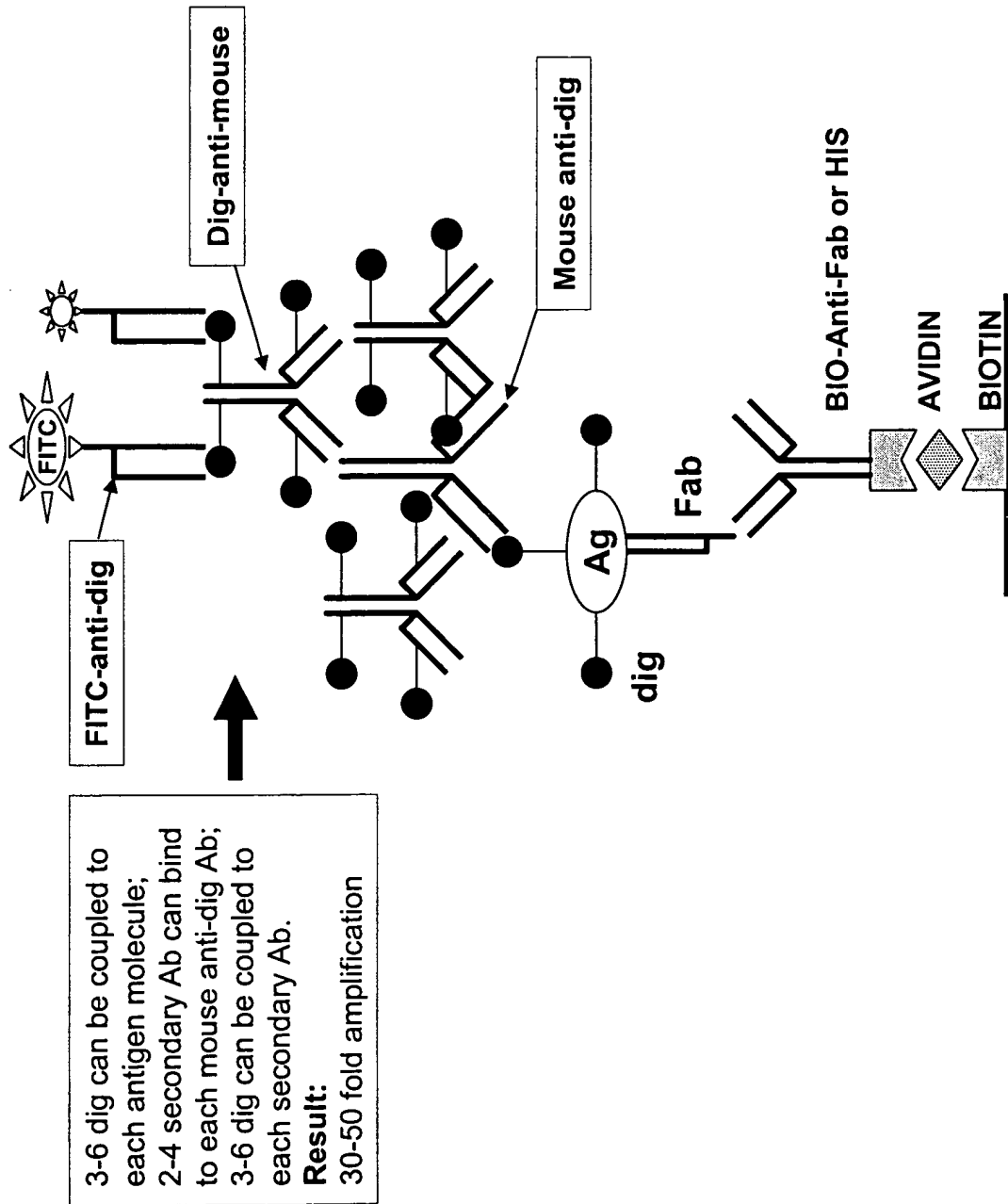


Fig. 28

Fig. 29

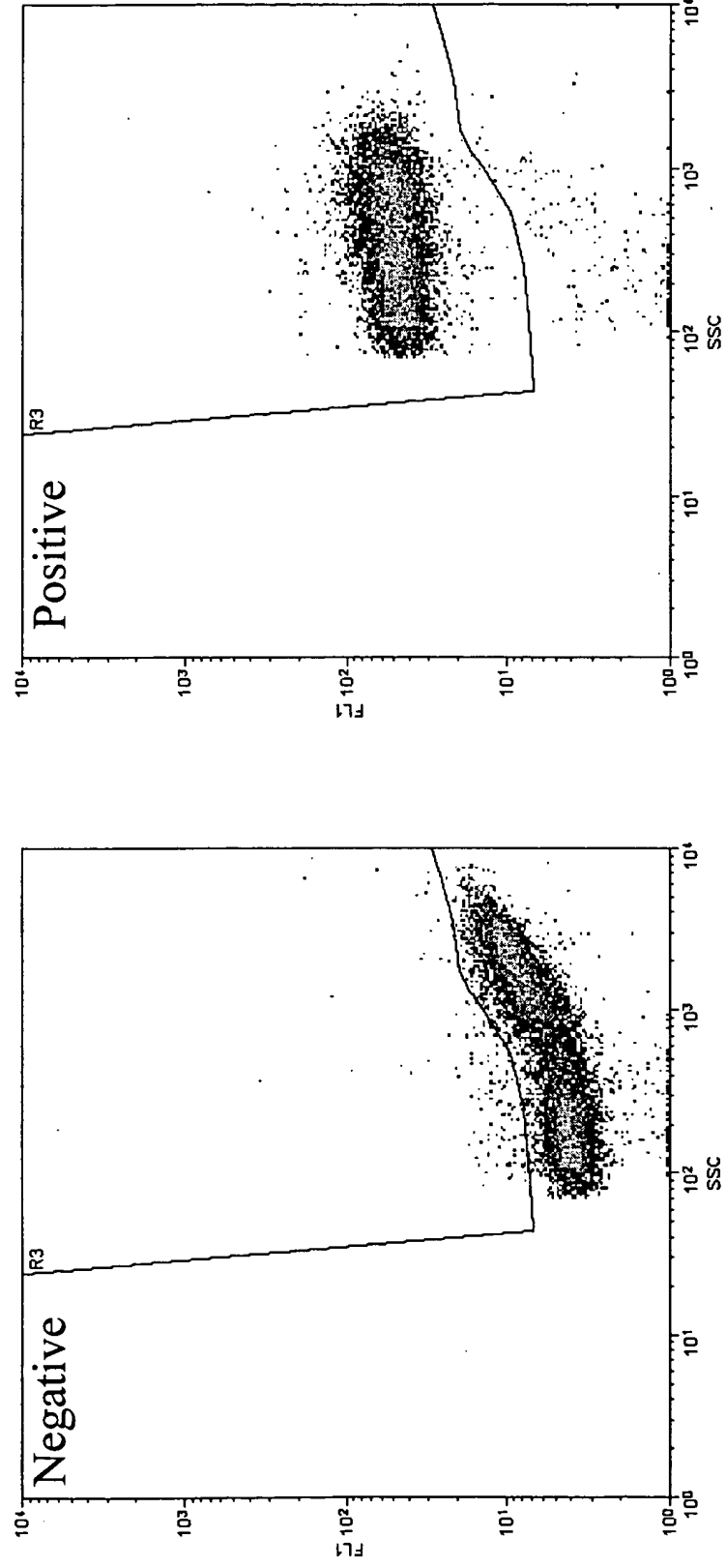

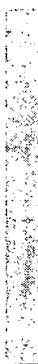
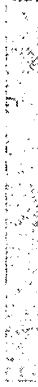

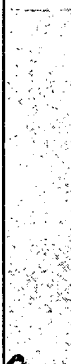
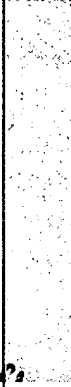
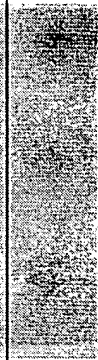
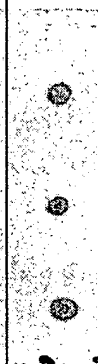
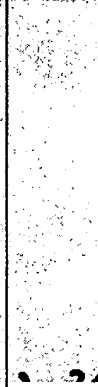
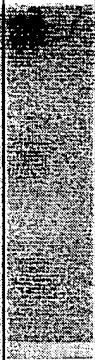
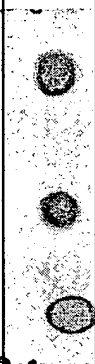
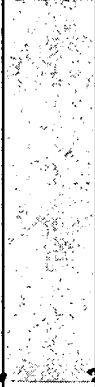

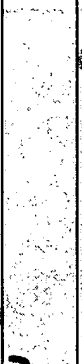
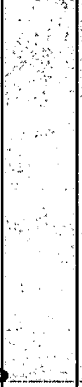

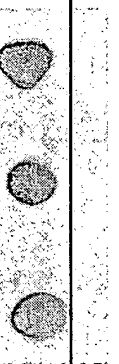
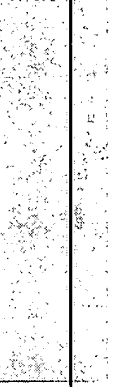


Fig. 30

	F(ab) specific	Antigen specific + antigen	Antigen specific - antigen
Cell line 1 vo			
Cell line 2 vo			
Cell line 1 Ab			
Cell line 2 Ab			
Cell line 1 nf			
Cell line 2 Ab			

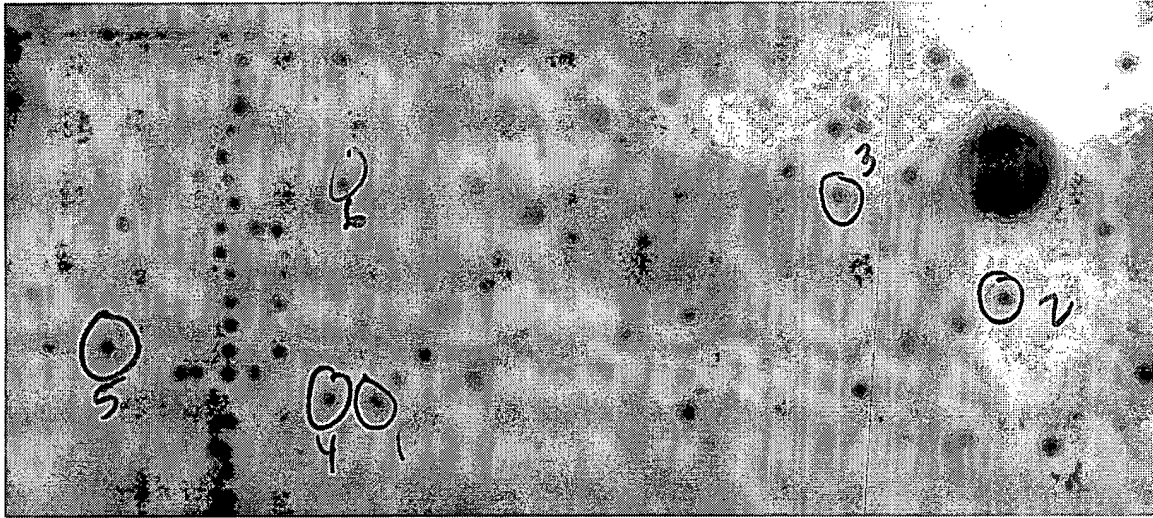


Fig 31